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ABSTRACT

The Indian Health Service (IHS), an agency within the U.S. Department of Health and Human Services, is responsible for providing health services to American Indians and Alaska Natives living on or near federal reservations (about 60 percent of the Native population). This publication is composed primarily of data tables and graphs that describe the IHS, the health status and demography of American Indians and Alaska Natives, and health and medical services provided. Current and trend information are presented, as well as comparisons with other population groups. Opening sections provide an overview of the IHS, summarize the statistical data, describe data sources and limitations, and include a glossary and additional information sources. The tables and charts are grouped into six major categories: (1) IHS program structure and budget; (2) American Indian demography (population by age and sex, educational attainment, employment status, income, socioeconomic profiles); (3) natality (birth rates and weights, birth by age of mother, infant mortality, maternal deaths, leading causes of neonatal and postneonatal deaths); (4) mortality (mortality rates and causes of death by age group, deaths by age and sex, injury and poisoning, accident deaths, suicide, homicide, alcoholism deaths, disease related deaths, life expectancy); (5) patient care (hospitalization and major causes by age group, ambulatory medical visits by age group, dental services); and (6) community health (drug-related deaths by age and sex, motor vehicle deaths, nutrition and dietetics, nursing, homes with sanitation facilities deficiencies, health education provided by location and task function). Includes an index and a glossary of ICD-9 codes. (SV)

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1996 TRENDS in Indian Health

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INDIAN HEALTH SERVICE

TRENDS IN INDIAN HEALTH—1996

U.S. DEPARTMENT OF HEALTH
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PREFACE

Since 1955, the U.S. Public Health Service, through its Indian Health Service (IHS) component, has had the responsibility for providing comprehensive health services to American Indian and Alaska Native people in order to elevate their health status to the highest possible level. The mission of the IHS is to provide a comprehensive health services delivery system for American Indians and Alaska Natives with opportunity for maximum tribal involvement in developing and managing programs to meet their health needs.

This publication presents tables and charts that describe the IHS program, and the health status of American Indians and Alaska Natives. Information pertaining to the IHS structure, American Indian and Alaska Native demography, patient care, and community health are included. Current and trend information are presented, and comparisons with other population groups are made, when appropriate.

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OVERVIEW OF THE INDIAN HEALTH SERVICE PROGRAM

The Indian Health Service (IHS), an agency within the Department of Health and Human Services (DHHS), is responsible for providing federal health services to American Indians and Alaska Natives. The provision of health services to federally recognized Indians grew out of a special relationship between the federal government and Indian tribes. This government-to-government relationship is based on Article I, Section 8, of the United States Constitution, and has been given form and substance by numerous treaties, laws, Supreme Court decisions, and Executive Orders.

The Indian Health program became a primary responsibility of the DHHS under P.L. 83-568, the Transfer Act, on August 5, 1954. This Act provides "that all functions, responsibilities, authorities, and duties ... relating to the maintenance and operation of hospital and health facilities for Indians, and the conservation of Indian health ... shall be administered by the Surgeon General of the United States Public Health Service."

The IHS is the principle federal health care provider and health advocate for Indian people, and its goal is to raise their health status to the highest possible level. The mission is to provide a comprehensive health services delivery system for American Indians and Alaska Natives with opportunity for maximum Tribal involvement in developing and managing programs to meet their needs. It is also the responsibility of the IHS to work with the people involved in the health delivery programs so that they can be cognizant of entitlements of Indian people, as American citizens, to all federal, State, and local health programs, in addition to IHS and Tribal services. The IHS also acts as the principal federal health advocate for American Indian and Alaska Native people in the building of health coalitions, networks, and partnerships with Tribal nations and other government agencies as well as with non-federal organizations, e.g., academic medical centers and private foundations.

The IHS has carried out its responsibilities through developing and operating a health services delivery system designed to provide a broad-spectrum program of preventive, curative, rehabilitative and environmental services. This system integrates health services delivered directly through IHS facilities, purchased by IHS through contractual arrangements with providers in the private sector, and delivered through Tribally operated programs and urban Indian health programs.

The 1975 Indian Self-Determination Act, P.L. 93-638 as amended, builds upon IHS policy by giving Tribes the option of manning and managing IHS programs in their communities, and provides for funding for improvement of Tribal capability to contract under the Act. The 1976 Indian Health Care Improvement Act, P.L. 94-437, as amended, was intended to elevate the health status of American Indians and Alaska Natives to a level equal to that of the general population through a program of authorized higher resource levels in the IHS budget. Appropriated resources were used to expand health services, build and renovate medical facilities, and step up the construction of safe drinking water and sanitary disposal facilities. It also established programs designed to increase the number of Indian health professionals for Indian needs and to improve health care access for Indian people living in urban areas.

The operation of the IHS health services delivery system is managed through local administrative units called service units. A service unit is the basic health organization for a geographic area served by the IHS program, just as a county or city health department is the basic health organization in a State health department.

A few service units cover a number of small reservations; some large reservations are divided into a number of service units. The service units are grouped into larger cultural-demographic-geographic management jurisdictions, which are administered by Area Offices.

PURPOSE AND DESCRIPTION OF TRENDS IN INDIAN HEALTH

The IHS *Trends in Indian Health* attempts to fulfill the basic statistical information requirements of parties that are interested in the IHS, and its relationship with the American Indian and Alaska Native people. The tables and charts contained in the IHS *Trends in Indian Health* describe the IHS program, and the health status of American Indians and Alaska Natives residing in the IHS service area. The IHS service area consists of counties on and near federal Indian reservations. The Indians residing in the service area comprise about 60 percent of all Indians residing in the U.S.

Information pertaining to the IHS structure, American Indian and Alaska Native demography, patient care, and community health are included. Historical trends are depicted, and comparisons to other population groups are made, when appropriate. Current regional differences information can be found in the IHS companion publication called *Regional Differences in Indian Health*.

The tables and charts are grouped into six major categories: 1) IHS Structure, 2) Population Statistics, 3) Natality and Infant/Maternal Mortality Statistics, 4) General Mortality Statistics, 5) Patient Care Statistics, and 6) Community Health Statistics. The tables provide detailed data, while the charts show significant relationships. A table and its corresponding chart appear next to each other. However, some charts that are self-explanatory do not have a corresponding table. Also, a few tables have more than one chart associated with them.

SUMMARY OF DATA SHOWN

Indian Health Service Structure

The IHS is comprised of 11 regional administrative units called Area Offices. There is also an Office located in Tucson that is responsible for administering health services delivery. For the present statistical purposes, the Tucson Office is also considered an Area Office, thereby making 12 in total. As of October 1, 1995, the Area Offices consisted of 144 basic administrative units called service units. Of the 144 service units, 76 were operated by Tribes.

The IHS operated 38 hospitals, 61 health centers, 4 school health centers, and 47 health stations. Tribes have two different vehicles for exercising their self determination -- they can choose to take over the operation of an IHS facility through a P.L. 93-638 self-determination contract (Title I) or a P.L. 93-638 self-governance compact (Title III). A distinction is made in this publication regarding these two Tribal modes of operation, i.e., Title I and Title III. Tribes operated 11 hospitals (Title I, 2 hospitals and Title III, 9 hospitals), 129 health centers (Title I, 88 and Title III, 41), 3 school health centers (Title I, 2 and Title III, 1), 73 health stations (Title I, 60 and Title III, 13), and 167 Alaska village clinics (Title I, 14 and Title III, 153).

There were 34 Urban Projects ranging from information referral and community health services to comprehensive primary health care services.

As of January 1, 1996, all IHS and Tribally-operated hospitals and eligible IHS-operated health centers were accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Since 1990, 6 of 9 (67 percent) of the Regional Youth Treatment Centers have become accredited by JCAHO or the Commission on Accreditation of Rehabilitation Facilities. The remaining 3 are preparing for accreditation.

IHS proficiency testing rating exceeded the requirements of the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) for all private and public sector laboratories. Overall proficiency rating for IHS laboratories is 98 percent. CLIA '88 requires 80 percent proficiency on all regulated analytes.

In FY 1995, there were nearly 97 million pharmacy workload units in IHS and Tribal direct facilities. Over 61 percent of these were associated with outpatient care.

Population Statistics

In Fiscal Year 1997, the IHS service population (count of those American Indians and Alaska Natives who are eligible for IHS services) will be approximately 1.43 million. The IHS service population is increasing at a rate of about 2.1 percent per year, excluding the impact of new Tribes.

The Indian population residing in the IHS service area is younger than the U.S. All Races population, based on the 1990 Census. For Indians, 33 percent of the population was younger than 15 years, and 6 percent was older than 64 years. For the U.S. All Races population, the corresponding values were 22 and 13 percent respectively. The Indian median age was 24.2 years compared with 32.9 years for U.S. All Races.

According to the 1990 Census, Indians have lower incomes than the general population. In 1989, Indians residing in the current Reservation States had a median household income of $19,897 compared with $30,056 for the U.S. All Races population. During this time period, 31.6 percent of Indians lived below the poverty level in contrast to 13.1 percent for the U.S. All Races population.

Natality and Infant/Maternal Mortality Statistics

The birth rate for American Indians and Alaska Natives residing in the IHS service area was 26.6 (rate per 1,000 population) in 1991-1993. It is 67 percent greater than the 1992 birth rate of 15.9 for the U.S. All Races population.

The maternal mortality rate for American Indians and Alaska Natives residing in the IHS service area dropped from 27.7 (rate per 100,000 live births) in 1972-1974 to 6.9 in 1991-1993, a decrease of 75 percent. During 1991-1993, there were only 7 Indian maternal deaths.

The infant mortality rate for American Indians and Alaska Natives residing in the IHS service area dropped from 22.2 (rate per 1,000 live births) in 1972-1974 to 8.8 in 1991-1993, a decrease of 60 percent. The U.S. All Races rate for 1992 was 8.5.

General Mortality Statistics

The leading cause of death for American Indians and Alaska Natives residing in the IHS service area (1991-1993) was diseases of the heart followed by malignant neoplasms (the same as for the total U.S. All Races population in 1992). However, the cause of death rankings differ by sex. For Indian males, the top two causes were diseases of the heart and accidents. For Indian females, the top two causes were diseases of the heart and malignant neoplasms.

In 1991-1993, the Indian (IHS service area) age-adjusted mortality rates for the following causes were considerably higher than those for the U.S. All Races population in 1992:

1) alcoholism - 465 percent greater,
2) tuberculosis - 425 percent greater,
3) accidents - 184 percent greater,
4) diabetes mellitus - 166 percent greater,
5) pneumonia and influenza - 51 percent greater,
6) suicide - 46 percent greater, and
7) homicide - 39 percent greater.

Patient Care Statistics

In FY 1994, there were about 91,000 admissions to IHS and Tribal direct and contract general hospitals. The leading cause of hospitalization was obstetric deliveries and complications of pregnancy and puerperium.

The total number of ambulatory medical visits (IHS and Tribal direct and contract facilities) was over 6.3 million in FY 1994, an increase of nearly 1,300 percent since FY 1955. The leading cause of ambulatory medical visits in IHS and Tribal direct and contract facilities was supplementary classification. The supplementary classification category includes such clinical impressions as other preventive health services, well child care, physical examination, tests only (lab, x-ray, screening), and hospital, medical, or surgical follow-up.

The number of direct and contract dental services provided (IHS, Tribal, and Urban) increased over 1,650 percent (from under 0.2 million in FY 1955 to nearly 3.2 million in FY 1995).

Community Health Statistics

For people accepted for treatment into the IHS substance abuse treatment program, most initial contacts are for alcohol addiction only. However, the number of initial contacts involving other drugs has been increasing. Also, the age-adjusted drug-related death rate for Indians residing in the IHS service area increased from 3.4 deaths per 100,000 population in 1979-1981 to 4.6 in 1991-1993. The U.S. All Races rate for 1992 was 4.3.

The IHS Injury Prevention (IP) program has a wide variety of projects in place in all IHS Areas to address this major health problem. Exemplary projects are: child passenger protection, roadway/roadside hazard identification, safety belt use promotion, deterring drinking and driving, drowning prevention, smoke detector usage, helmet use, and injury prevention campaign. The IHS IP program has contributed to a 22 percent decline in IHS and Tribal direct and contract hospitalizations for injuries and poisonings since FY 1987.

The nutrition and dietetics program reported over 234,000 patient/client contacts during FY 1995. About half of the contacts were in the hospital setting (45 percent) with the contacts for ambulatory clinic (31 percent) and community (24 percent) more equally distributed. Nearly two-thirds (62 percent) of the contacts were for clinical nutrition counseling and about one-quarter (26 percent) were for health promotion. Of the clinical nutrition counseling contacts, the majority were for general nutrition (45 percent) and diabetes (31 percent). Due to a change to the IHS Generic Activities Reporting System software in FY 1994, analysis by encounter type is not possible.

The number of patient/client contacts reported by the nutrition and dietetics program decreased 23 percent from FY 1994 to FY 1995. In FY 1995, the number of hospital patient/client contacts increased slightly while those for ambulatory care and community decreased. During this time period, program resources remained essentially the same, but there was a decrease in the number of staff using the reporting system due to Self-Governance. Self-Governance occurs more frequently at health care delivery program sites providing only ambulatory and/or community services than at sites with comprehensive systems that include hospitals.

There were over 381,000 public health nursing visits recorded in the Headquarters reports for FY 1995. The most frequent program areas dealt with during these visits were health promotion/disease prevention (30 percent of the visits), morbidity (25 percent), and child health (11 percent). The visits were concentrated in two age groups, children under 5 years of age (22 percent) and adults over the age of 64 (18 percent). Female visits outnumbered male visits by nearly 65 percent.

The community health representative (CHR) program reported over 3.6 million client contacts in FY 1995. Most of these contacts took place in the community (37 percent), The two leading detailed activities for CHR contacts in FY 1995 were health education (22 percent) and case management (20 percent). The reduction of reported CHR services in FY 1995 (from 4.1 million in FY 1993) reflects the transfer of resources to Tribes as part of the Self-Governance activity. The majority of Self-Governance Tribes elected not to use the national CHR program reporting system.

Since 1960, over 206,000 Indian homes were funded by IHS for the provision of sanitation facilities. These services included water and sewerage facilities, solid waste disposal systems and technical assistance to establish and equip operation and maintenance organizations for new, rehabilitated, and existing homes. Contributions to IHS sanitation facilities projects are received from numerous sources. In FY 1995, the largest source of funds (37 percent of the total) was attributable to the Department of Housing and Urban Development Infrastructure. Tribes contributed 26 percent and local governments 25 percent of the funds for these cooperative projects.

The FY 1996 sanitation deficiencies to serve existing American Indian and Alaska Native homes and communities totals $630 million. This amount is to provide first service sanitation facilities, to upgrade existing facilities, to provide solid waste facilities, and to provide assistance to operation and maintenance organizations.

Health education providers spent the majority of their time in the office (57 percent of total provider hours) followed by hospital/clinic (12 percent) and Tribal worksite (11 percent). Thirty-four percent of health education clients were served at a school location and 29 percent at a Tribal worksite. Health education providers devoted 33 percent of their time to support services and 25 percent to design education objectives/materials. Over 90 percent of health education clients received services in one of two functional areas -- implementing/teaching (50 percent) or design education objectives/materials (42 percent). These health education percentages are based reporting from five IHS Areas. See the "Sources and Limitations of Data" section that follows for a more complete discussion of the data qualifications.

SOURCES AND LIMITATIONS OF DATA

Population Statistics

The IHS service population consists of American Indians and Alaska Natives identified to be eligible for IHS services. IHS service population estimates are based on official U.S. Census Bureau county data. The Census Bureau enumerates those individuals who identify themselves as being American Indian, Eskimo or Aleut. The IHS service population is estimated by counting those American Indians, Eskimos, and Aleuts (as identified during the Census) who reside in the geographic areas in which IHS has responsibilities ("on or near" reservations, i.e., contract health service delivery areas (CHSDAs)). The IHS service population comprises approximately 60 percent of all Indians residing in the U.S. These people may or may not use IHS services.

The IHS service population estimates, which are shown in this publication, need to be contrasted to the IHS user population estimates that are shown in the *Regional Differences in Indian Health* publication. IHS user population estimates are based on data from the IHS Patient Registration System. Patients who receive direct or contract health services from IHS or Tribally-operated programs are registered in the Patient Registration System. Those registered Indian patients that had at least one direct or contract inpatient stay, ambulatory medical visit, or dental visit during the last 3 years are defined as users. IHS user population figures are used for calculating IHS patient care rates. In contrast, IHS service population figures are used in calculating Indian vital event rates since State birth and death certificates do not provide information on use of IHS services.

IHS service populations between Census years (e.g., 1980 and 1990) are estimated by a smoothing technique in order to show a gradual transition between Census years. This normally results in upward revisions to service population figures projected prior to a Census, since each Census tends to do a better job in enumerating American Indians and Alaska Natives. For example, the American Indian and Alaska Native service population enumerated in 1990 was approximately 8 percent higher than that estimated by IHS for 1989. Therefore, after release of the 1990 enumeration figures, IHS smoothed the service population estimates for 1981-1989. That set of smoothed populations was used in the 1992 edition of this series. Subsequently, the Census Bureau issued revised 1990 Census American Indian and Alaska Native population counts by age and sex for all U.S. counties. They resulted in a 3.9 percent increase for the 1990 IHS service population using these "new" 1990 Census counts compared to the "old" 1990 Census counts. In order to adjust for this 1990 increase, IHS again smoothed the service populations for 1981-1989. This second set of smoothed populations was used in the 1993 edition of the series. The Census Bureau then issued revised 1980 Census American Indian and Alaska Native population counts by age and sex for all U.S. counties, as was done for 1990. They resulted in a 2.8 percent increase for the 1980 IHS service population using these "new" 1980 Census counts compared with the "old" 1980 Census counts. In order to adjust for this 1980 increase, IHS for a third time smoothed the service populations for 1981-1989. This third set of smoothed populations was used for the first time in the 1994 edition of the series.

IHS service populations beyond the latest Census year (1990) are projected through linear regression techniques, using the most current 10 years of Indian birth and death data provided by the National Center for Health Statistics. The natural change (estimated number of births minus estimated number of deaths) is applied to the latest Census enumeration.

The IHS does not currently forecast changes in the service population distribution by age and sex. Rather, appropriate Indian age and sex distributions from Census years are applied to population estimates for non-Census years.

The social and economic data contained in this publication are from the 1990 Census. They reflect the characteristics of persons that self-identified as Indian during the Census.

Vital Event Statistics

American Indian and Alaska Native vital event statistics are derived from data furnished annually to the IHS by the National Center for Health Statistics (NCHS). Vital event statistics for the U.S. population were derived from data appearing in various NCHS publications, as well as from some unpublished data from NCHS. NCHS obtains birth and death records for all U.S. residents from the State departments of health, based on information reported on official State birth and death certificates. The records NCHS provides IHS contain the same basic demographic items as the vital event records maintained by NCHS for all U.S. residents, but with names, addresses, and record identification numbers deleted. It should be noted that Tribal identity is not recorded on these records. Tabulations of vital events for this publication are by place of residence.

The data are subject to the degree of accuracy of reporting by the States to NCHS. NCHS does perform numerous edit checks, and imputes values for non-responses.

It is known that there is under reporting of Indian race on State death certificates in the California, Oklahoma, and Portland Areas. In the Regional Differences in Indian Health publication, which shows Area-specific indices, adjustments are made for these Areas. IHS is currently assessing the extent of this problem in other IHS Areas. Since this publication only shows IHS-aggregate mortality-based indices (i.e., mortality rates, years of potential life lost, and life expectancy at birth), no adjustments are made. Therefore, these IHS-aggregate mortality-based indices should be considered conservative estimates of the true values. However, the trends are essentially the same with and without adjustments for under reporting of Indian race on death certificates.

The vital event statistics in this publication pertain to only American Indians and Alaska Natives residing in the IHS service area. Editions of this publication before 1992 showed vital event statistics calculated on a Reservation State basis. Therefore, data were included for Indians residing outside the geographic areas for which IHS has responsibility. This was done in order to show trends starting in FY 1955, to correspond with the inception of the Indian Health Service (IHS) program. Prior to 1972, only total Reservation State data are available.

Now that there are sufficient vital event data available for the IHS service area to show meaningful trends, this publication shows vital event statistics for the IHS service population, starting with data for calendar year 1972. IHS service area data are more indicative of the health status of the Indians that IHS serves. Reservation State vital event rates tend to be lower in value (i.e., lower birth rates, lower mortality rates) than IHS service area rates. However, the vital event tables in this publication will still include the 1955 Reservation State figure as an historical bench mark.

The Indian population is considerably younger than the U.S. All Races population. Therefore, the mortality rates presented in this publication have been age-adjusted, where applicable, so that appropriate comparisons can be made between these population groups. One exception is the information presented for leading causes of death. In order to determine the leading causes of death for a population group, it is necessary to rank causes of death without any adjustment for age. However, it should be kept in mind that the ranking of causes of death for a population group is affected by its age composition.

Beginning with this 1996 edition, the leading causes of death are shown for finer age groups in support of the IHS Director's initiatives on youth and elder care. In particular, the 1 to 14 year age group has been split into 1 to 4 and 5 to 14, and the 45 to 64 year age group has been split into 45 to 54 and 55 to 64.

The age-adjusted mortality rates presented in this publication were computed by the direct method, that is, by applying the age-specific death rate for a given cause of death to the standard population distributed by age. The total population as enumerated in 1940 was selected as the standard since this is the standard used by NCHS. The rates for the total population and for each race-sex group were adjusted separately, by using the same standard population. The age-adjusted rates were based on 10-year age groups. It is important not to compare age-adjusted death rates with crude rates.

Prior to the 1993 edition of this publication, alcoholism deaths were defined through the use of three ICD-9 cause of death code groups; 291 - alcoholic psychoses; 303 - alcohol dependence syndrome; and 571.0-571.3 - alcoholic liver disease. Various IHS Area statisticians and epidemiologists believed this definition to be incomplete and suggested that it be expanded to include five additional ICD-9 code categories. These "new" categories were used for the first time in the 1993 edition. They include; 305.0 - alcohol overdose; 425.5 - alcoholic cardiomyopathy; 535.3 - alcoholic gastritis; 790.3 - elevated blood-alcohol level; and E860.0, E860.1 - accidental poisoning by alcohol, not elsewhere classified. This expanded definition results in about a 25 percent increase in the number of alcoholism deaths identified in comparison with the previous 3-group definition. NCHS is now publishing alcoholism deaths with a definition that includes codes that IHS has not used, i.e., 357.5 - alcoholic polyneuropathy and all of E860 (not just E860.0 and E860.1) - accidental poisoning by alcohol. To be consistent with NCHS, these additional codes will be used by IHS starting with this edition. The NCHS definition includes all of the code groups previously used by IHS plus these new codes. This NCHS definition of alcoholism deaths is now used in all IHS publications, including *Regional Differences in Indian Health*.

NCHS is also now publishing drug-related deaths with a definition that includes codes that IHS has not used, i.e., 292 - drug psychoses and E962.0 - assaults from poisoning by drugs and medicaments. To be consistent with NCHS, this additional code will be groups previously used by IHS plus these two codes. This NCHS definition of drug-related deaths is now used in all IHS publications, including *Regional Differences in Indian Health*.

Injury and poisoning deaths are shown for various sub-groups in this publication, e.g., accidents, homicides, suicides. A new grouping, "injury by firearms," is being added starting with this edition because of its significance in the Indian community. It includes deaths with the following ICD-9 codes: E922 - accident caused by firearm missile; E955.0-E955.4 - suicide and self-inflicted injury by firearms; E965.0-E965.4 and E970 - assault by firearms and legal intervention; E985.0-E985.4 - injury by firearms, undetermined whether accidently or purposely inflicted. Injury by firearm causes exclude explosives and other causes indirectly related to firearms.

Patient Care Statistics

Patient care statistics are derived from IHS reporting systems. There are four main patient care reporting systems. The Monthly Inpatient Services Report is a patient census report that is prepared by each IHS hospital. It indicates the number of discharges and days by type of service (e.g., adult, pediatric, obstetric, newborn), and is used for the direct inpatient workload statistics. The Inpatient Care System is the source of IHS hospital inpatient data pertaining to various patient characteristics (age, sex, principal diagnoses, other diagnoses, community of residence, etc.). The data are collected daily, one record per discharge. The Contract Care System is the source of similar contract hospital inpatient data.

The Ambulatory Patient Care System is the source of data pertaining to the number of ambulatory medical visits at IHS facilities by various patient characteristics (age, sex, clinical impression, community of residence, etc.). The data are collected daily, one record per ambulatory medical visit. The Contract Care System is the source of similar contract ambulatory medical visit data.

The data from the automated systems are subject to recording, inputting, and transmitting errors. However, the IHS Division of Program Statistics monitors the reporting systems, and each one has a computer edit. In these ways, errors are kept to an acceptable level.

Starting with this edition, leading causes of hospitalization and ambulatory medical visits are shown for specific age groups. In prior editions, they were only shown for all ages and by sex.

There are seven other information systems that provide data, presented in this report, pertaining to patient care. The Clinical Laboratory Workload Reporting System is the source of laboratory services data. The Pharmacy System is the source of pharmacy workload data. The Contract Information System and Grants Data System are the sources for Tribal health contract and grant awards information. The Urban Projects Reporting System is the source for workload data for the Urban Projects. The Dental Data System is the source for dental services data. The Fluoridation Data System, managed by the IHS Dental Services Branch, is the source for fluoridation systems information. The Pharmacy System and Urban Projects Reporting System are manual systems, the others are automated. The systems are monitored by IHS Headquarters personnel.

Community Health Statistics

The source of alcoholism and substance abuse program data is the Chemical Dependency Management Information System (CDMIS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel.

The nutrition and dietetics statistics are derived from the IHS Nutrition and Dietetics Program Activity Reporting System (NDPARS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. Starting with FY 1994, the data reported through NDPARS are incomplete. This is because some Tribes who are participating in the Self-Governance activity have elected not to use this program reporting system.

The public health nursing data are collected through the IHS Community Health Activity Reporting System. This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. The number of public health nursing visits reported in this edition for FY 1995 is considerably higher than the number reported for FY 1994 in last year's edition. This is because most public health nursing programs are now utilizing the Patient Care Component (PCC) to collect data.

For FY 1995, data on the IHS Community Health Representatives (CHR) Program were obtained from the IHS Community Health Representative Information System (CHRIS II). CHRIS II is an automated reporting system that is monitored by IHS CHR Program Headquarters personnel. This system was approved by the Office of Management and Budget on March 31, 1989, and has been operational since July 10, 1989. Data are collected during one week randomly selected from each month. At the start of FY 1992 minor changes in the CHRIS II activity code categories were implemented. Primarily, the service codes were simplified by consolidating administrative functions. This change improved the data quality by greatly reducing the incidence of inaccurately reported persons served when administrative functions were performed by CHRs. In addition, the setting category, "radio/telephone," was added to allow the reporting of CHR services provided to individuals via these media. Health area category names were changed only to add greater specificity and clarity to the activity reporting system and its data (e.g., "substance abuse" was changed to "alcohol/substance abuse"). Data presented encompass 12 sample reporting weeks from October 1994 through September 1995. These data have been expanded to represent estimated workload for a 12-month period. Starting with FY 1994, the data reported through CHRIS II are incomplete. This is because most Tribes who are participating in the Self-Governance activity have elected not to use the national CHR program reporting system.

The sanitation facilities statistics are derived from IHS reporting systems and financial systems. The IHS reporting systems are the Project Data System and the Sanitation Facility Data System. The Project Data System is the source of detailed data on P.L. 86-121 construction projects that provide water supplies and sewerage and waste disposal facilities to American Indians and Alaska Natives. It includes such data as community name, type and number of homes provided with services, the funds allocated and funds expended, completion dates and accomplishments. Data are collected quarterly. The Sanitation Facility Data System is the source of additional data on sanitation facilities serving American Indians and Alaska Natives. It includes such data as the number of homes served, water rates, fluoridation information, Safe Drinking Water Act Compliance, system reliability, and the unmet need for new or upgraded facilities. Data are collected annually. The systems are monitored by IHS Headquarters personnel.

The health education data are collected through the IHS Health Education Resource Management System (HERMS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. Currently, only five IHS Areas (Albuquerque, California, Nashville, Navajo, and Phoenix) are reporting data using HERMS. The data have not been extrapolated to represent the totals of all IHS health education programs since the main purpose of the charts and tables is to show the distributions of provider hours and clients served. It is assumed that the distributions calculated from the data of the five Areas are similar to the distributions for all twelve Areas. It should be noted that the totals of provider hours and clients served are different for each chart/table due to specific report parameters. That is, different records may be excluded in the generation of the various reports because of screens specific to each report.

GLOSSARY

Age Adjustment

The application of the age-specific rates in a population of interest to a standardized age distribution in order to eliminate the differences in observed rates that result from age differences in population composition. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.

Area

A defined geographic region for Indian Health Service (IHS) administrative purposes. Each Area Office administers several service units.

Average Daily Patient Load

The average number of patients occupying beds in a hospital on a daily basis. It is calculated by dividing total inpatient days for the year by 365.

Birth Weight

Weight of fetus or infant at time of delivery (recorded in pounds and ounces or grams).

Cause of Death

For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and utilizing the international rules for selecting the underlying cause of death from the reported conditions.

Community Health Representative (CHR)

Indians selected, employed, and supervised by their Tribes and trained by IHS to provide specific health care services at the community level.

Contract Care

Services not available directly from IHS or Tribes that are purchased under contract from community hospitals and practitioners.

Health Center

A facility, physically separated from a hospital, with a full range of ambulatory services, including at least primary care physicians, nursing, pharmacy, laboratory, and x-ray, that are available at least 40 hours a week for ambulatory care.

Health Station

A facility, physically separated from a hospital or health center, where primary care physician services are available on a regularly scheduled basis but for less than 40 hours a week.

Infant Mortality

Death of live-born children who have not reached their first birthday expressed as a rate (i.e., the number of infant deaths during a year per 1,000 live births reported in the year).

Life Expectancy

The average number of years of life remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned.

Live Birth

A live birth is the complete expulsion or extraction from its mother of a product of conception irrespective of the duration of pregnancy, which after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Low Birth Weight

Birth weight of less than five pounds, eight ounces or 2500 grams.

Maternal Death

The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Neonatal Mortality Rate

The number of deaths under 28 days of age per 1,000 live births.

Occurrence

Place where the event occurred.

Postneonatal Mortality Rate

The number of deaths that occur from 28 days to 365 days after birth per 1,000 live births.

Race

On death certificates, race is usually recorded by the funeral director who may or not query the family members of the decedent. The race of a newborn does not appear on the birth certificate. In this report if either the mother, the father, or both parents were recorded as American Indian or Alaska Native on the birth certificate, the birth is considered as an American Indian or Alaska Native birth.

Reservation State

A State in which IHS has responsibilities for providing health care to American Indians or Alaska Natives.

Residence

Usual place of residence of person to whom event occurred. For births and deaths, residence is defined as the mother's place of residence.

Service Area

The geographic areas in which IHS has responsibilities — "on or near" reservations, i.e., contract health service delivery areas.

Service Population

American Indians and Alaska Natives identified to be eligible for IHS services.

Service Unit

The local administrative unit of IHS.

User Population

American Indians and Alaska Natives eligible for IHS services who have used those services at least once during the last 3-year period.

Years of Potential Life Lost (YPLL)

A mortality indicator that measures the burden of premature deaths. It is calculated by subtracting the age at death from age 65 and summing the result over all deaths.

SOURCES OF ADDITIONAL INFORMATION

Additional Indian health status information can be obtained from the IHS Division of Program Statistics. Specific responsibilities are as follows:

General Information

Anthony J. D'Angelo, Director, Division of Program Statistics

Demographic Statistics

Aaron O. Handler, Chief, Demographic Statistics Branch
Linda J. Querec, Statistician
JoAnn N. Pappalardo, Computer Systems Analyst
Barbara A. Moore, Statistical Assistant

Patient Care Statistics

Stephen F. Kaufman, Chief, Patient Care Statistics Branch
Bonnie M. Matheson, Computer Assistant

Copies of this and other Division publications may be obtained from Priscilla Sandoval or Monique E. Alston, Division Secretaries.

The Division address and phone number are as follows:

Indian Health Service
Office of Planning, Evaluation, and Legislation
Division of Program Statistics
Twinbrook Metro Plaza
12300 Twinbrook Parkway, Suite 450
Rockville, Maryland 20852

Phone: 301-443-1180
Fax: 301-443-1522
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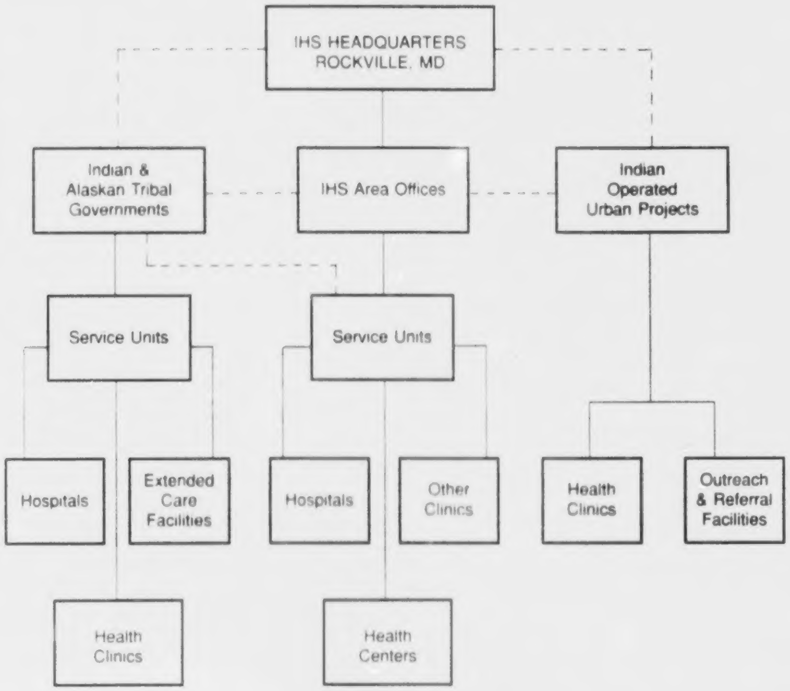
This publication, other IHS publications, and additional information about the IHS are available on the IHS Home Page on the Internet.

The address is:
http://www.ihs.gov/

PART I - INDIAN HEALTH SERVICE STRUCTURE

Chart 1.1
Indian Health Service

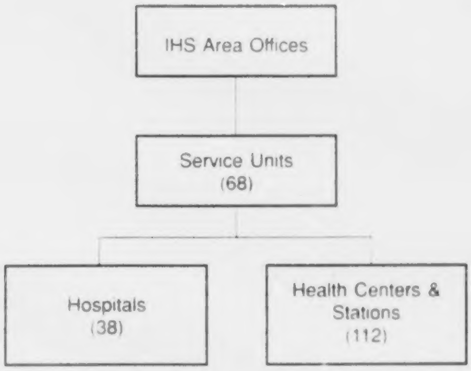
The Indian Health Service is composed of 12 regional administrative units called Area Offices. Some of the health programs are operated by Tribes, and there are a limited number of projects to serve Indians living in urban areas.



IHS HEADQUARTERS ROCKVILLE, MD
Indian & Alaskan Tribal Governments
IHS Area Offices
Indian Operated Urban Projects
Service Units
Service Units
Hospitals
Extended Care Facilities
Hospitals
Other Clinics
Health Clinics
Outreach & Referral Facilities
Health Clinics
Health Centers

Chart 1.2
Indian Health Service Area Offices

There were 68 Indian Health Service-operated service units that administered 38 hospitals and 112 health centers, school health centers, and health stations as of October 1, 1995.



IHS Area Offices
Service Units (68)
Hospitals (38)
Health Centers & Stations (112)

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Chart 1.3
Indian and Alaska Native Tribal Governments

There were 76 Tribally operated service units that administered 11 hospitals and 372 health centers, school health centers, health stations, and Alaska village clinics as of October 1, 1995.

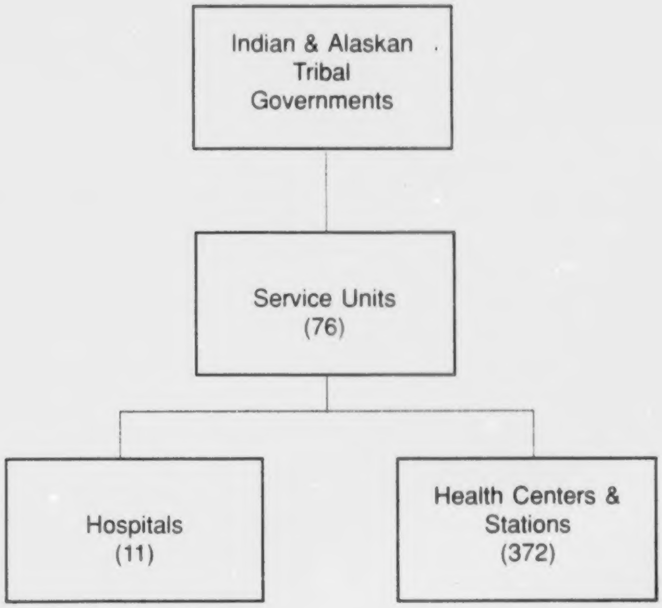
Indian & Alaskan Tribal Governments
Service Units (76)
Hospitals (11)
Health Centers & Stations (372)

Chart 1.4
Indian-Operated Urban Projects

There were 34 Indian-operated Urban Projects as of October 1, 1995. The Urban programs range from information referral and community health services to comprehensive primary health care services.

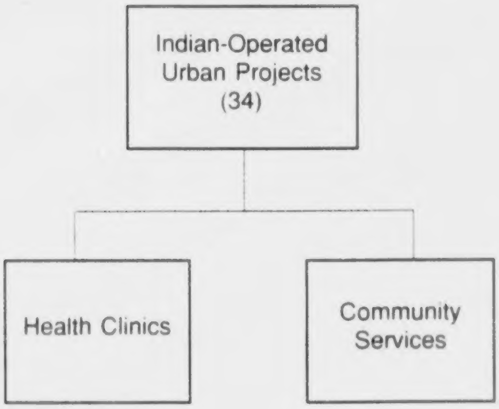
Indian-Operated Urban Projects (34)
Health Clinics
Community Services

Chart 1.5
Number of Facilities Operated by Indian Health Service and Tribes as of October 1, 1995

Indian Health Service operated 38 hospitals, 61 health centers, 4 school health centers, and 47 health stations as of October 1, 1995. Tribes can operate a facility under a P.L. 93-638 self-determination contract (Title I) or self-governance compact (Title III). Tribes operated 11 hospitals (Title I, 2 hospitals and Title III, 9 hospitals), 129 health centers (Title I, 88 and Title III, 41), 3 school health centers (Title I, 2 and Title III, 1), 73 health stations (Title I, 60 and Title III, 13), and 167 Alaska village clinics (Title I, 14 and Title III, 153).

			Tribal		
Type of Facility	Total	IHS	Total	I	III
Hospitals	**49**	**38**	**11**	**2**	**9**
Ambulatory Facilities	**484**	**112**	**372**	**164**	**208**
Health Centers	190	61	129	88	41
School Health Centers	7	4	3	2	1
Health Stations	120	47	73	60	13
Alaska Village Clinics	167	--	167	14	153

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

Chart 1.6
Trend in Indian Health Service Budget

The Indian Health Service budget (appropriations and collections) has increased 121 percent from FY 1987 to FY 1996. However, in constant 1995 dollars, the budget has only increased 24 percent.

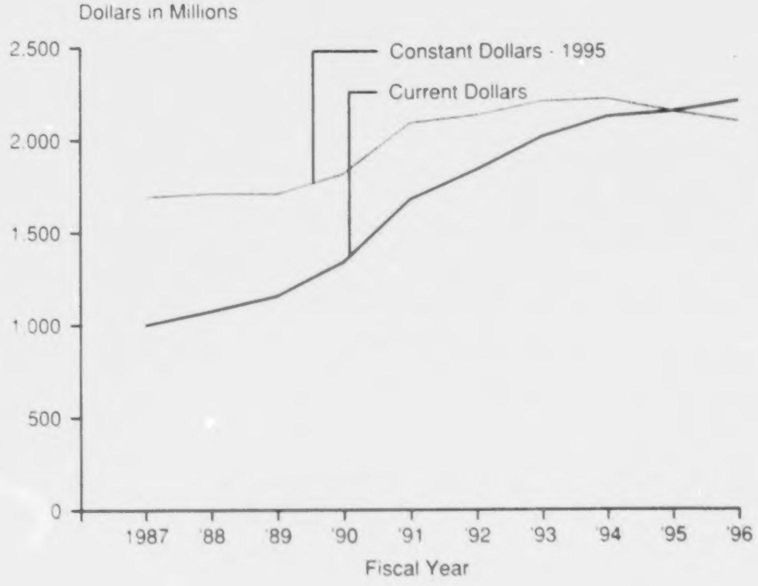

Table 1.6
Trend in Indian Health Service Budget

(Dollars in Thousands)

Category	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996
Clinical Services	747,526	816.729	883.088	1.031.072	1,235,481	1,276,185	1,251.660	1.325.462	1,370,421	1,417,641
Preventive Health Services	66.331	70,110	73,471	77,630	89.978	64,951	70,011	74.464	77,032	78,018
Other Services										
Urban Health	9.000	9.624	9.962	13.049	15.687	17,195	20.965	22.834	23,349	23,360
Indian Health Professions	7,018	7,646	8,115	9,540	13,380	19,205	26,092	27.406	27,479	26,271
Tribal Management	2,709	3.094	3,218	2,562	4,235	5,038	5,161	5,285	5,048	2,348
Direct Operations	37,111	39.104	42.471	44.484	52,406	49,029	48.659	49.471	49,709	49,260
Self Governance	—	—	—	—	—	—	1,884	4,980	8,594	9,104
Contract Support Cost	—	—	—	—	—	—	100,558	136,186	145,460	154,840
Sub-Total Other	55.838	59,468	63.766	69,635	85,708	90,467	203,319	246,162	259,639	265,183
Total Services	869.695	946.307	1.020.325	1.178.337	1,411,167	1,431,603	1,524,990	1,646.088	1,707,092	1,760,842
Facilities	71,055	62,511	61,668	71,633	166,402	274,351	333,640	296,982	252,982	238,958
TOTAL SERVICES & FACILITIES [1]	940.750	1.008.818	1.081.993	1.249.970	1.577.569	1.705.954	1.858.630	1.943.070	1,960,074	1,999,800
Medicare/Medicaid Collections	58.287	66.126	75.019	88.097	94.301	121,628	140.805	159.605	162,066	[2] 176,536
Private Insurance Collections	—	—	—	3,500	8,326	12,350	18,184	22,700	31,233	[2] 33,784
TOTAL IHS [3] - CURRENT $s	**999,037**	**1,074,944**	**1,157,012**	**1,341,567**	**1,680,196**	**1,839,932**	**2,017,619**	**2,125,375**	**2,153,373**	**2,210,120**
TOTAL IHS [3] - CONSTANT $s [4]	**1,693,218**	**1,710,138**	**1,708,782**	**1,817,049**	**2,093,126**	**2,134,166**	**2,208,962**	**2,221,067**	**2,153,373**	**2,098,879**

[1] Total IHS appropriations.

[2] Estimated collections.

[3] Total dollars available to spend.

[4] Constant 1995 dollars based on consumer price index for medical care. 1986-95. and 1996 budget inflation factor of 5.3 percent.

Chart 1.7
Accreditation Status of Selected Health Facilities, January 1, 1996

As of January 1, 1996, all hospitals and eligible health centers were accredited by the Joint Commission on Accreditation of Healthcare Organizations. Since 1990, 6 of 9 Regional Youth Treatment Centers have become accredited, and the remaining 3 are preparing for accreditation.

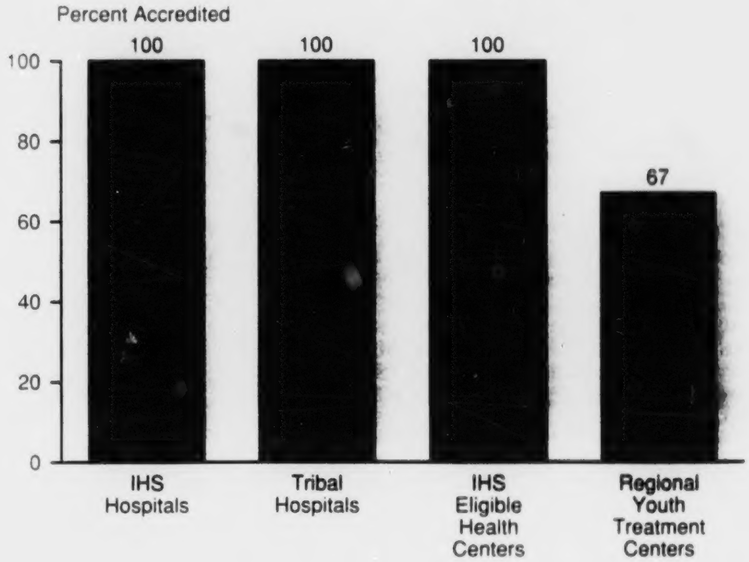

Table 1.7
Accreditation Status of Hospitals, Health Centers, and Regional Youth Treatment Centers, January 1, 1996

Type of Facility	Total	Accredited [1]	Not Accredited	Percent Accredited
IHS Hospitals	38	38	0	100
Tribal Hospitals	11	11	0	100
IHS Eligible Health Centers	[2] 57	57	0	100
Regional Youth Treatment Centers [3]	9	[4] 6	3	67

[1] Accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO).

[2] Excludes health centers not eligible for accreditation survey and those under Tribal management pursuant to P.L. 93-638.

[3] Provide alcohol and substance abuse treatment.

[4] Includes 3 facilities accredited by JCAHO and 3 facilities accredited by the Commission on Accreditation of Rehabilitation Facilities.

Chart 1.8

Accreditation Status of Indian Health Service Laboratories

Ninety-eight percent of health center laboratories and 100 percent of hospital laboratories operated by the Indian Health Service were accredited as of January 1, 1996.

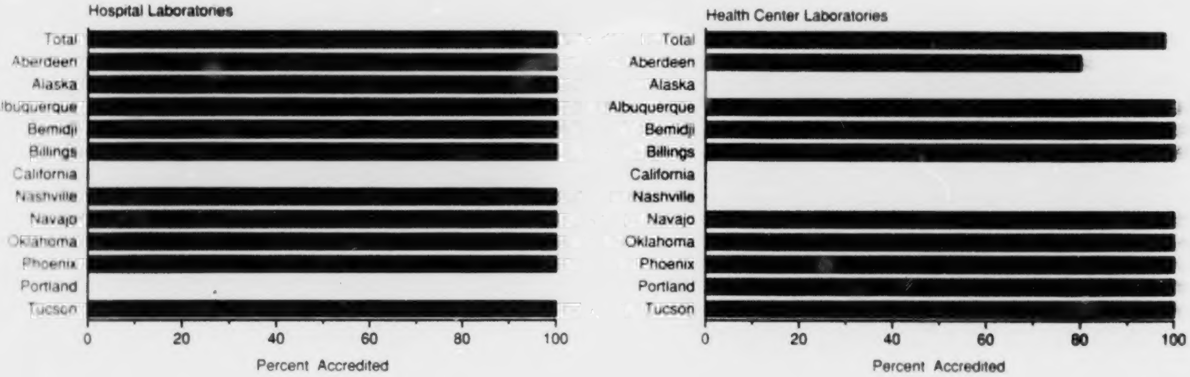

Table 1.8

Indian Health Service Laboratory Accreditation Status, January 1, 1996

	IHS Hospital Laboratories					IHS Health Center Laboratories				
Area	Total	Accredited[1]	Not Accredited	Percent Accredited	Percent in Proficiency Testing Program[2]	Total	Accredited[1]	Not Accredited	Percent Accredited	Percent in Proficiency Testing Program[2]
All Areas	38	38	0	100	100	49	48	1	98	100
Aberdeen	8	8	0	100	100	5	4	1	80	100
Alaska	2	2	0	100	100	—	—	—	—	—
Albuquerque	5	5	0	100	100	5	5	0	100	100
Bemidji	2	2	0	100	100	1	1	0	100	100
Billings	3	3	0	100	100	6	6	0	100	100
California	—	—	—	—	—	—	—	—	—	—
Nashville	1	1	0	100	100	—	—	—	—	—
Navajo	6	6	0	100	100	5	5	0	100	100
Oklahoma	4	4	0	100	100	11	11	0	100	100
Phoenix	6	6	0	100	100	3	3	0	100	100
Portland	—	—	—	—	—	11	11	0	100	100
Tucson	1	1	0	100	100	2	2	0	100	100

[1] Laboratories hold a certificate of accreditation from the College of American Pathologists, the Joint Commission on the Accreditation of Healthcare Organizations, or the Health Care Financing Administration as mandated under the Clinical Laboratory Improvement Amendments (CLIA) of 1988. Excludes laboratories under Tribal management pursuant to P.L. 93–638.

[2] Laboratories participating in the College of American Pathologists (CAP) national proficiency testing program.

Chart 1.9
Proficiency Rating for Indian Health Service Laboratory Services, 1995

IHS proficiency testing rating exceeded the requirements of the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) for all private and public sector laboratories. Overall proficiency rating for IHS laboratories is 98 percent. CLIA '88 requires 80 percent proficiency on all regulated analytes.

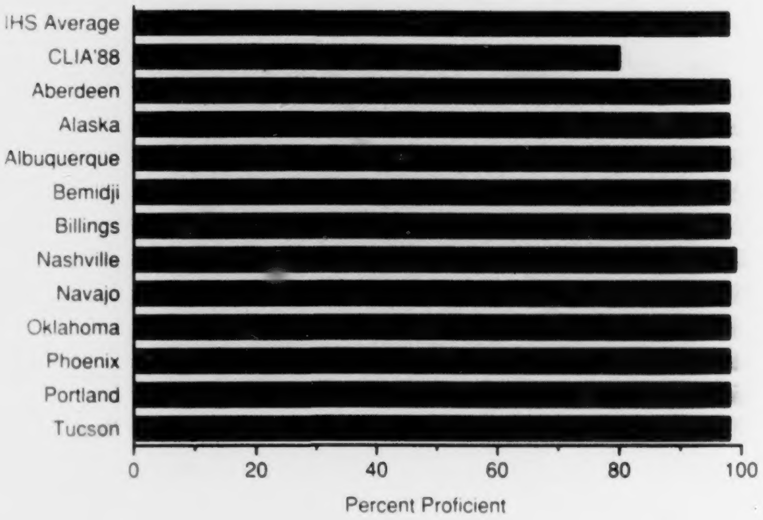

Table 1.9
Proficiency Rating for Indian Health Service Laboratory Services, 1995

Area	Percent Proficient
IHS Average	98
CLIA '88[1]	80
Aberdeen	98
Alaska	98
Albuquerque	98
Bemidji	98
Billings	98
Nashville	99
Navajo	98
Oklahoma	98
Phoenix	98
Portland	98
Tucson	98

[1] Proficiency level required by Clinical Laboratory Improvement Amendments (CLIA) of 1988

Chart 1.10
Outpatient Prescriptions Filled per Pharmacist, Indian Health Service and Tribal Direct Facilities, FY 1995

The average number of outpatient prescriptions filled per pharmacist at Indian Health Service and Tribal direct facilities in FY 1995 was 13,300. There was a wide variability among the Areas, ranging from 7,595 in Nashville to 23,310 in Navajo.

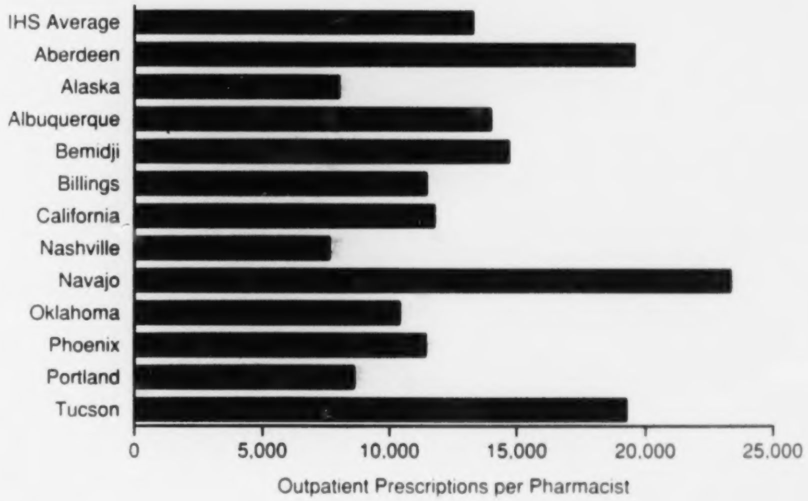

Table 1.10
Outpatient Prescriptions Filled per Pharmacist, Indian Health Service and Tribal Direct Facilities, FY 1995

Area	Number of Outpatient Prescriptions Filled	Number of Pharmacists	Prescriptions Filled per Pharmacist
All Areas	6,889,243	518	13,300
Aberdeen	1,017,977	52	19,576
Alaska	423,188	53	7,985
Albuquerque	531,809	38	13,995
Bemidji	514,564	35	14,702
Billings	343,548	30	11,452
California	211,725	18	11,763
Nashville	197,457	26	7,595
Navajo	1,538,430	66	23,310
Oklahoma	975,981	94	10,383
Phoenix	650,477	57	11,412
Portland	368,630	43	8,573
Tucson	115,457	6	19,243

Chart 1.11
Pharmacy Workload by Type of Activity, Indian Health Service and Tribal Direct Facilities, FY 1995

Over 61 percent of pharmacy workload at Indian Health Service and Tribal direct facilities in FY 1995 was associated with outpatient activities, followed by clinical support activities at 19 percent.

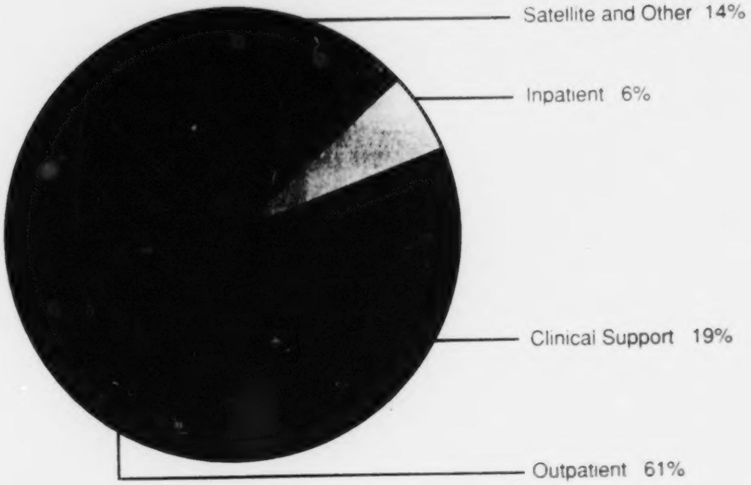

Table 1.11
Pharmacy Workload by Type of Activity, Indian Health Service and Tribal Direct Facilities, FY 1995

Type of Activity	Workload Units	Percent of Total
Total	96.805.303	100.0
Outpatient	59.435.251	61.4
Clinical Support	18.186.552	18.8
Inpatient	6.213.147	6.4
Satellite	1.218.622	1.3
Other	11.751.731	12.1

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Chart 1.12
Ambulatory Medical Visits per Pharmacist, Indian Health Service and Tribal Direct Facilities, FY 1995

The average number of ambulatory medical visits per pharmacist at Indian Health Service and Tribal direct facilities in FY 1995 was 11,720. There was a wide variability among the Areas, ranging from 8,835 in Portland to 15,553 in California.

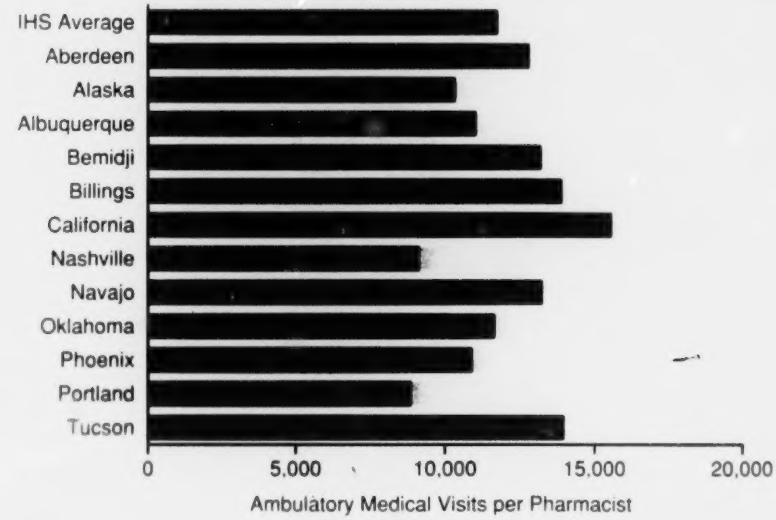

Table 1.12
Ambulatory Medical Visits per Pharmacist, Indian Health Service and Tribal Direct Facilities, FY 1995

Areas	Number of Ambulatory Medical Visits	Number of Pharmacists	Visits per Pharmacist
All Areas	6,071,006	518	11,720
Aberdeen	664,914	52	12,787
Alaska	546,807	53	10,317
Albuquerque	418,079	38	11,002
Bemidji	461,170	35	13,176
Billings	461,140	30	13,871
California	279,959	18	15,553
Nashville	236,899	26	9,112
Navajo	872,182	66	13,215
Oklahoma	1,092,153	94	11,619
Phoenix	619,203	57	10,863
Portland	379,903	43	8,835
Tucson	83,597	6	13,933

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PART 2 - POPULATION STATISTICS

Chart 2.1
Indian Health Service—Service Population

The IHS service population is increasing at a rate of about 2.1 percent per year, excluding the impact of new Tribes. It is estimated to be approximately 1.43 million in FY 1997.

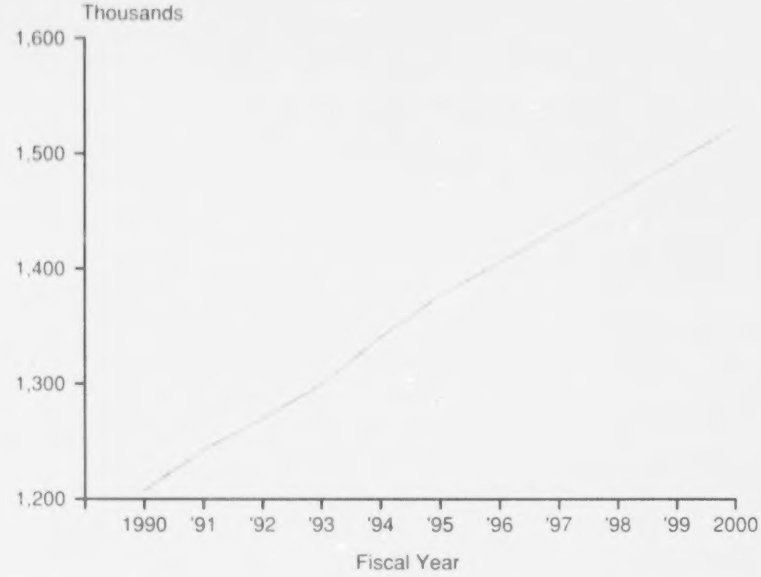
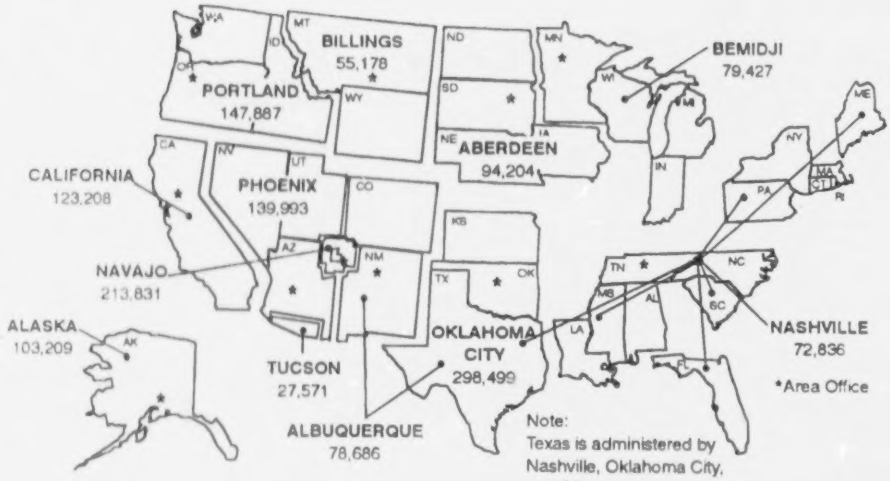


Chart 2.2
Indian Health Service—Service Population by Area, FY 1997

The largest percentage of the FY 1997 service population, 21, is located in the Oklahoma City Area, followed by the Navajo Area with 15. The Tucson Area has the smallest percentage, 2.


WA
OR
ID
MT
BILLINGS
55,178
PORTLAND
147,887
WY
ND
SD
MN
NE
IA
ABERDEEN
94,204
WI
MI
BEMIDJI
79,427
IN
ME
NY
MA
CT
RI
PA
CA
CALIFORNIA
123,208
NV
UT
PHOENIX
139,993
CO
AZ
NM
NAVAJO
213,831
KS
OK
TX
TN
NC
MS
AL
SC
LA
FL
NASHVILLE
72,836
ALASKA
103,209
AK
TUCSON
27,571
OKLAHOMA CITY
298,499
ALBUQUERQUE
78,686

*Area Office

Note:
Texas is administered by Nashville, Oklahoma City, and Albuquerque.

Table 2.1
IHS Service Population by Area, 1990–2000

Area	1990 (Census)	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
All Areas	1,207,236	1,242,719	1,269,823	1,299,415	1,340,666	1,376,692	1,405,437	1,434,529	1,463,938	1,493,644	1,523,662
(Growth Factor)	—	(2.94)	(2.18)	(2.33)	(3.17)	(2.69)	(2.09)	(2.07)	(2.05)	(2.03)	(2.01)
Aberdeen	74,789	81,119	83,282	85,454	87,633	89,818	92,008	94,204	96,409	98,618	100,833
Alaska	86,251	88,610	90,990	93,390	95,813	98,257	100,721	103,209	105,721	108,254	110,808
Albuquerque	67,504	69,014	70,553	72,117	73,714	75,341	76,998	78,686	80,402	82,147	83,922
Bemidji	61,349	62,693	64,044	65,412	67,190	76,290	77,848	79,427	81,027	82,647	84,287
Billings	47,008	48,203	49,391	50,564	51,735	52,896	54,041	55,178	56,302	57,417	58,523
California	104,828	106,978	109,125	113,448	116,506	118,737	120,966	123,208	125,456	127,693	129,926
Nashville	48,943	54,268	55,148	56,062	69,217	70,384	71,592	72,836	74,119	75,438	76,796
Navajo	180,959	185,674	190,382	195,118	199,764	204,458	209,147	213,831	218,507	223,178	227,847
Oklahoma	262,517	267,333	272,248	277,268	282,418	287,668	293,021	298,499	304,087	309,774	315,579
Phoenix	120,707	123,452	126,220	128,524	131,388	134,235	137,101	139,993	142,913	145,864	148,840
Portland	127,774	130,346	132,986	136,180	138,987	141,884	144,846	147,887	151,000	154,195	157,461
Tucson	24,607	25,029	25,454	25,878	26,301	26,724	27,148	27,571	27,995	28,419	28,840

SOURCE: Estimated American Indian and Alaska Native service population by Area based on 1984–1993 vital events and the 1990 Census modified age, race, and sex files.

Chart 2.3
Population by Age and Sex, 1990 Census

Indian and Alaska Native data prepared using current (1996) IHS service area boundaries and 1990 Census data by age and sex. The Indian male and female populations were younger than the corresponding male and female populations for the U.S. All Races. Seventeen percent of Indian males were under age 15 and 16 percent of Indian females were in this age group. For U.S. All Races, this percentage was 11 for both sexes.

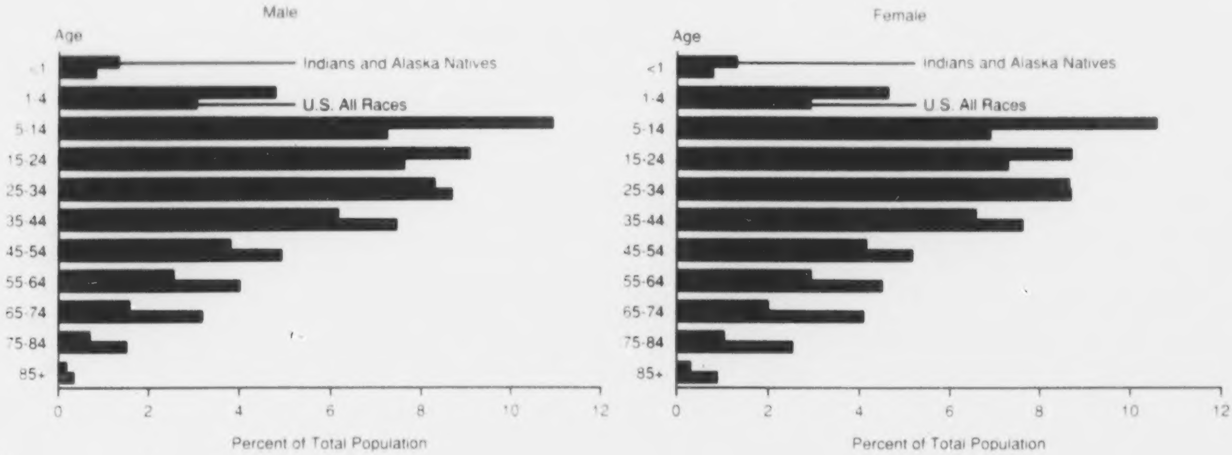


Table 2.3
Age and Sex Percent Distribution

American Indians and Alaska Natives, IHS Service Area and U.S. All Races and White Populations, 1990 Census Data.

	Indian and Alaska Native, IHS Service Area[1]		U.S. All Races		U.S. White	
Age Group	Male	Female	Male	Female	Male	Female
Percent of Both Sexes:						
All Ages	49.274	50.726	48.747	51.253	48.941	51.059
Under 1 year	1.322	1.294	0.812	0.775	0.768	0.730
1–4 years	4.774	4.616	3.048	2.907	2.909	2.761
5–14 years	10.921	10.568	7.226	6.885	6.932	6.567
15–24 years	9.066	8.690	7.605	7.277	7.374	6.995
25–34 years	8.284	8.643	8.670	8.684	8.658	8.508
35–44 years	6.148	6.564	7.442	7.610	7.579	7.587
45–54 years	3.794	4.136	4.918	5.156	5.091	5.245
55–64 years	2.537	2.913	4.003	4.486	4.223	4.647
65–74 years	1.566	1.977	3.179	4.076	3.415	4.335
75–84 years	0.687	1.022	1.506	2.520	1.628	2.725
85 years and over	0.175	0.303	0.338	0.877	0.364	0.959
Percent Within Each Sex:						
All Ages	100.000	100.000	100.000	100.000	100.000	100.000
Under 1 year	2.683	2.551	1.665	1.512	1.570	1.430
1–4 years	9.689	9.100	6.253	5.673	5.944	5.407
5–14 years	22.164	20.834	14.823	13.434	14.163	12.862
15–24 years	18.399	17.133	15.602	14.198	15.066	13.700
25–34 years	16.812	17.038	17.787	16.941	17.693	16.663
35–44 years	12.477	12.940	15.267	14.847	15.487	14.859
45–54 years	7.700	8.153	10.089	10.061	10.401	10.272
55–64 years	5.149	5.742	8.211	8.753	8.628	9.101
65–74 years	3.178	3.897	6.522	7.954	6.978	8.491
75–84 years	1.394	2.015	3.089	4.917	3.326	5.337
85 years and over	0.355	0.597.	0.694	1.710	0.744	1.878

[1] Based upon data from the 1990 Census modified age, race, and sex files, and current (1996) IHS service area boundaries. Percentage point distributions were adjusted for errors due to rounding. More recent population estimates for the American Indian and Alaska Native population by age and sex are unavailable at the county level. As a result, IHS service area estimates by age and sex, which need to be based on county level data, could not be prepared.

Chart 2.4
Population by Age, 1990

For Indians, 33 percent of the population was younger than 15 years and 6 percent was older than 64 years. For the U.S. All Races population, the corresponding percentages were 22 and 13, respectively.

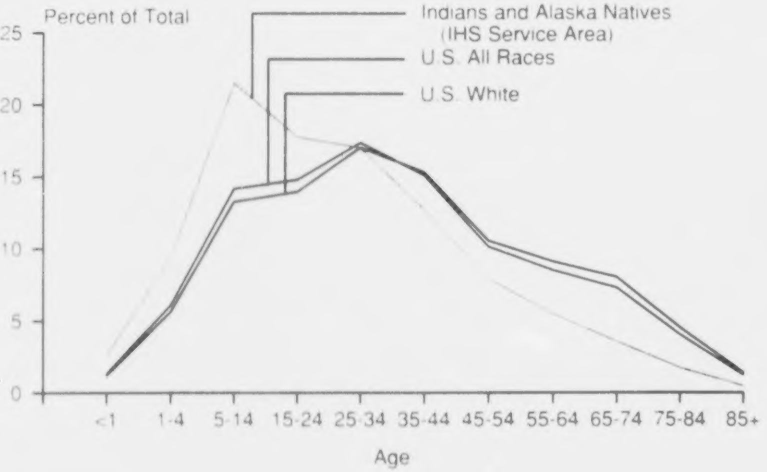


Table 2.4
Percent Age Distribution

American Indians and Alaska Natives, IHS Service Area and U.S. All Races and White Populations, 1990 Census Data

Age Group	Indian and Alaska Native[1]	U.S. All Races	U.S. White
All Ages	100.000	100.000	100.000
Under 1 year	2.616	1.294	1.204
1–4 years	9.390	6.086	5.631
5–9 years	11.239	7.277	6.819
10–14 years	10.251	6.881	6.437
15–19 years	9.470	7.138	6.682
20–24 years	8.286	7.647	7.273
25–29 years	8.729	8.569	8.332
30–34 years	8.198	8.791	8.690
35–39 years	6.971	8.027	8.053
40–44 years	5.740	7.083	7.265
45–49 years	4.353	5.578	5.802
50–54 years	3.577	4.564	4.760
55–59 years	2.965	4.235	4.491
60–64 years	2.485	4.268	4.613
65–69 years	2.077	4.066	4.457
70–74 years	1.466	3.215	3.569
75–79 years	1.090	2.461	2.747
80–84 years	0.619	1.582	1.779
85 years and over	0.478	1.238	1.396
Median Age	24.2 years	32.9 years	34.4 years

[1] Based upon data from the 1990 Census modified age, race, and sex files, and current (1996) IHS service area boundaries. Percentage point distribution was adjusted for errors due to rounding. More recent population estimates for the American Indian and Alaska Native population by age and sex are unavailable at the county level. As a result, IHS service area estimates by age and sex, which need to be based on county level data, could not be prepared.

Chart 2.5
Educational Attainment, American Indians and U.S. All Races, 1990 Census

According to the 1990 Census, 65.3 percent of Indians age 25 and older residing in the current Reservation States are high school graduates or higher, compared with 75.2 percent for the U.S. All Races population. For bachelor's degree or higher, these percentages are 8.9 and 20.3, respectively.

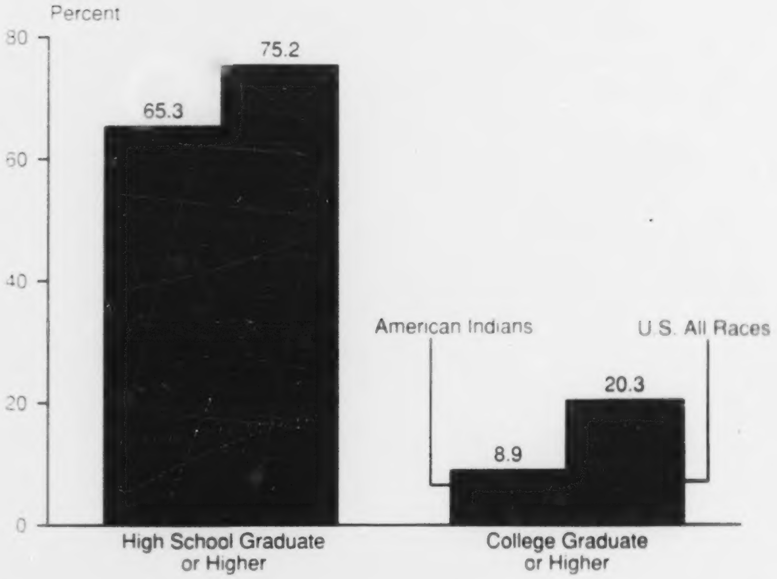


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Chart 2.6
Employment Status by Sex, American Indians and U.S. All Races, 1990 Census

In 1990, 16.2 percent of Indian males age 16 and older residing in the current Reservation States were unemployed, compared with 6.4 percent for the U.S. All Races male population. For females, these percentages were 13.4 and 6.2, respectively.

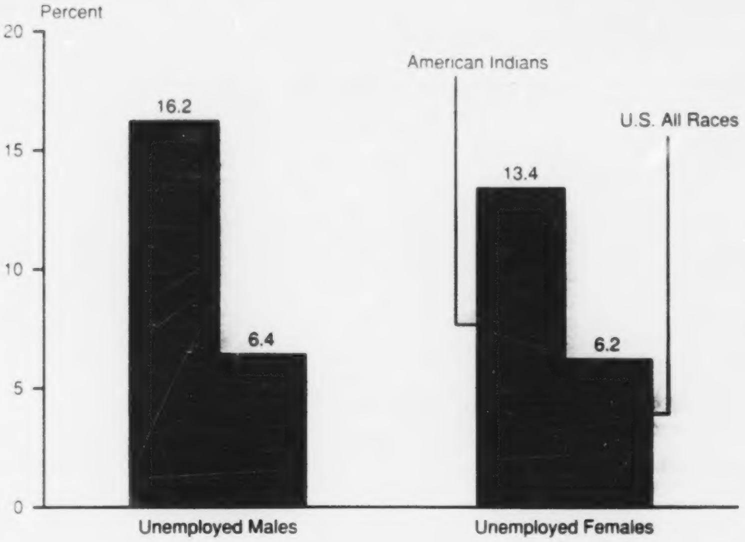

Chart 2.7
Income Status in 1989, American Indians and U.S. All Races, 1990 Census

According to the 1990 Census, the median household income in 1989 for Indians residing in the current Reservation States was $19,897, compared with $30,056 for the U.S. All Races population. During this period, 31.6 percent of Indians lived below the poverty level, in contrast to 13.1 percent for the U.S. All Races population.

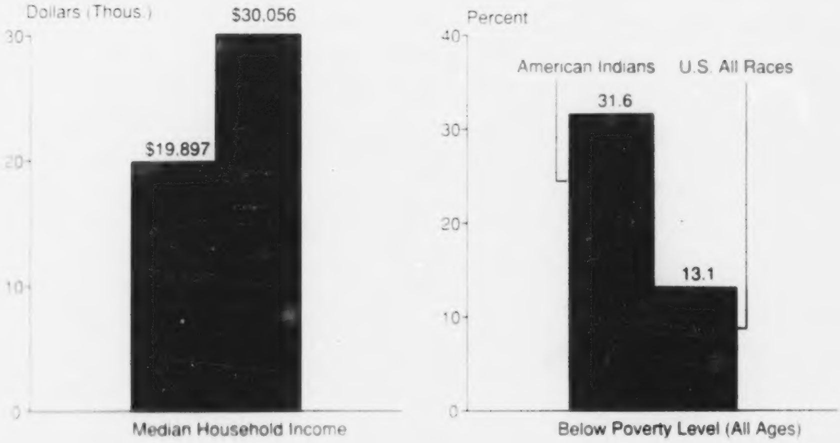

Table 2.5

Selected Economic Profiles for the United States, 1990 Census

	American Indian and Alaska Native	All Races	White	Black	Asian and Pacific Islander	Hispanic
Educational Attainment (Persons 25 years and older):						
Percent less than 9th grade	14.1	10.4	8.9	13.8	12.9	30.7
Percent 9th to 12th grade, no diploma	20.6	14.4	13.1	23.2	9.5	19.5
Percent high school grad or higher	65.3	75.2	77.9	63.1	77.5	49.8
Percent bachelor's degree or higher	8.9	20.3	21.5	11.4	36.6	9.2
Employment Status by Sex (Persons 16 years and older):						
Percent unemployed, males	16.2	6.4	5.3	13.7	5.1	9.8
Percent unemployed, females	13.4	6.2	5.0	12.2	5.5	11.2
Household Income in 1989:						
Median household income	$19,897	$30,056	$31,435	$19,758	$36,784	$24,156
Percent Below the Poverty Level by Age:						
All ages	31.6	13.1	9.8	29.5	14.1	25.3
Under 5 years	43.1	20.1	13.8	44.0	17.5	33.4
5 years	41.6	19.7	13.6	42.8	18.0	33.9
6 to 11 years	37.7	18.3	12.5	39.8	17.3	32.6
12 to 17 years	33.1	16.3	11.0	35.5	16.3	30.3
18 to 64 years	27.7	11.0	8.5	23.4	13.0	21.3
65 to 74 years	26.9	10.4	8.4	28.6	11.3	21.9
75 years and older	33.3	16.5	14.6	37.3	13.5	27.8

NOTE: American Indian data are for residents of the 35 Reservation States. (South Carolina was added as a Reservation State in FY 1994. Indiana was added as a Reservation State in 1995.)

SOURCE: U.S. Bureau of the Census, Minority Economic Profiles, July 24, 1992, Tables CPH-L-92, 93, 94, and 95, and unpublished data from the U.S. Bureau of the Census.

PART 3 - NATALITY AND INFANT/MATERNAL MORTALITY STATISTICS

Chart 3.1
Birth Rates

The American Indian and Alaska Native birth rate for 1991-1993 of 26.6 births per 1,000 population was 67 percent greater than the U.S. All Races birth rate for 1992 of 15.9, and 77 percent greater than the rate for the U.S. White population (15.0).

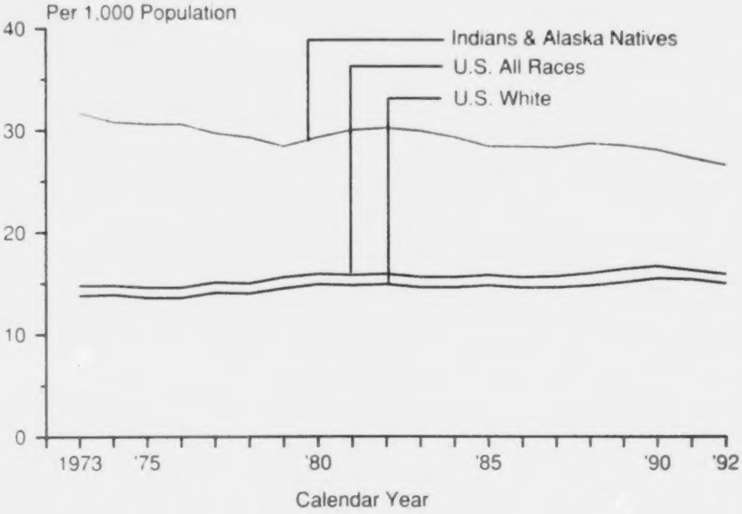

Table 3.1
Number and Rate of Live Births

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Rate per 1,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White
	Number	Rate	Number	Rate	Rate [1]
(1993)	33,429				
1991–1993 (1992)	33.894	26.6	4.065.014	15.9	15.0
1990–1992 (1991)	34.083	27.3	4.110.907	16.3	15.4
1989–1991 (1990)	33.554	28.1	4.158.212	16.7	15.5
1988–1990 (1989)	34.143	28.5	4.040.958	16.4	15.1
1987–1989 (1988)	32,544	28.7	3.909.510	16.0	14.8
1986–1988 (1987)	31.133	28.3	3.809.394	15.7	14.6
1985–1987 (1986)	29.996	28.4	3.756.547	15.6	14.6
1984–1986 (1985)	30,194	28.4	3.760.561	15.8	14.8
1983–1985 (1984)	28.416	29.3	3.669.141	15.6	14.6
1982–1984 (1983)	29.352	29.9	3.638.933	15.6	14.6
1981–1983 (1982)	28.701	30.2	3.680.537	15.9	14.9
1980–1982 (1981)	25.595	30.0	3.629.238	15.8	14.8
1979–1981 (1980)	25.346	29.3	3.612.258	15.9	14.9
1978–1980 (1979)	23.252	28.4	3.494.398	15.6	14.5
1977–1979 (1978)	20.250	29.3	3.333.279	15.0	14.0
1976–1978 (1977)	19.458	29.7	3.326.632	15.1	14.1
1975–1977 (1976)	18.797	30.6	3.167.788	14.6	13.6
1974–1976 (1975)	17.852	30.6	3.144.198	14.6	13.6
1973–1975 (1974)	17.099	30.8	3.159.958	14.8	13.9
1972–1974 (1973)	16.662	31.7	3.136.965	14.8	13.8
(1972)	16.801		3.258.411		
1954–1956 (1955)	17.028	37.5	4.097.000	25.0	23.8

[1] Starting in 1991 birth data for the U.S. White population are shown for the race of the mother, rather than the race of the child (as is shown for years prior to 1991).

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native birth rates are for the 3-year periods specified. Numbers of births and U.S. rates are for the single year specified.

Chart 3.2

Births of Low Weight (Under 2,500 Grams) as a Percent of Total Live Births by Age of Mother

5.8 percent of reported American Indian and Alaska Native live births in 1991-1993 were of low birth weight, the same as that of the U.S. White population in 1992. The U.S. All Races population was significantly higher at 7.1 percent in 1992.

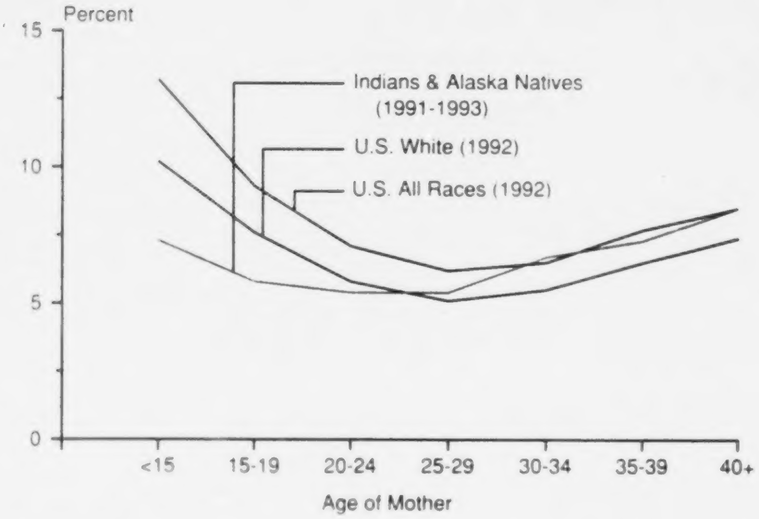

Table 3.2

Births of Low Birth Weight (Under 2,500 Grams) by Age of Mother

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

	Indian and Alaska Native			U.S. All Races			U.S. White		
Age of Mother	Total Live Births	Number Low Weight	Percent Low Weight	Total Live Births	Number Low Weight	Percent Low Weight	Total Live Births	Number Low Weight	Percent Low Weight
All Ages	[1] 101,226	5,911	5.8	[1] 4,060,531	287,493	7.1	[1] 3,198,525	185,662	5.8
Under 20 years	20,305	1,177	5.8	517,030	48,315	9.3	347,732	26,609	7.7
Under 15 years	385	28	7.3	12,189	1,608	13.2	5,352	548	10.2
15–19 years	19,972	1,149	5.8	504,841	46,707	9.3	342,380	26,061	7.6
20–24 years	33,547	1,820	5.4	1,069,314	76,290	7.1	813,671	47,398	5.8
25–29 years	24,989	1,358	5.4	1,178,054	73,223	6.2	963,698	49,242	5.1
30–34 years	15,020	1,005	6.7	894,309	58,428	6.5	744,785	40,643	5.5
35–39 years	6,125	450	7.3	344,212	26,343	7.7	282,279	18,329	6.5
40 years and over	1,188	101	8.5	57,612	4,894	8.5	46,360	3,441	7.4

[1] Excludes 180 American Indian and Alaska Native live births, 4,483 U.S. All Races live births, and 3,153 U.S. White live births with birth weight not stated.

Chart 3.3

Birth Order by Age of Mother, Percent Within Birth Order, American Indians and Alaska Natives

For the Indian population, 45 percent of mothers were under age 20 when they had their first child while 20 percent were at least age 25.

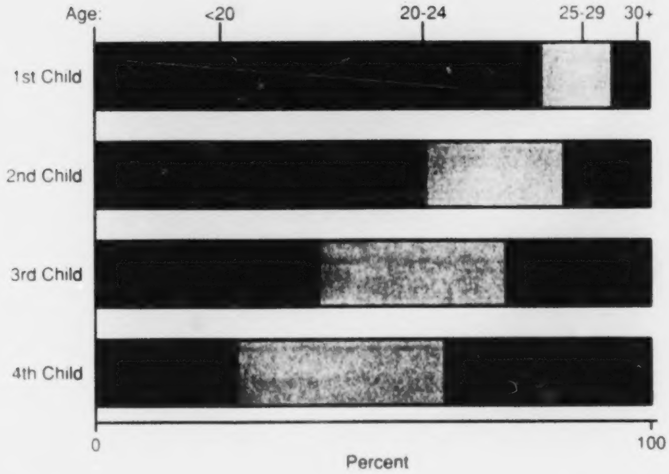

Chart 3.4

Birth Order by Age of Mother, Percent Within Birth Order, U.S. All Races

For the U.S. All Races population, 24 percent of mothers were under age 20 when they had their first child while 46 percent were at least age 25.

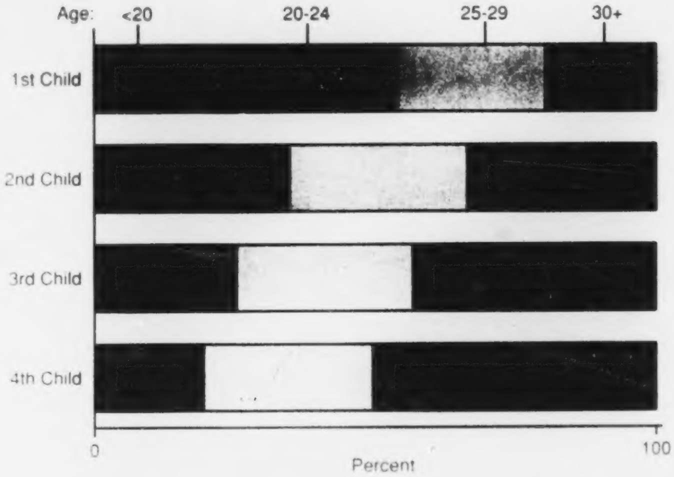

Chart 3.5

Birth Order by Age of Mother, Percent Within Birth Order, U.S. White

For the U.S. White population, 21 percent of mothers were under age 20 when they had their first child while 49 percent were at least age 25.

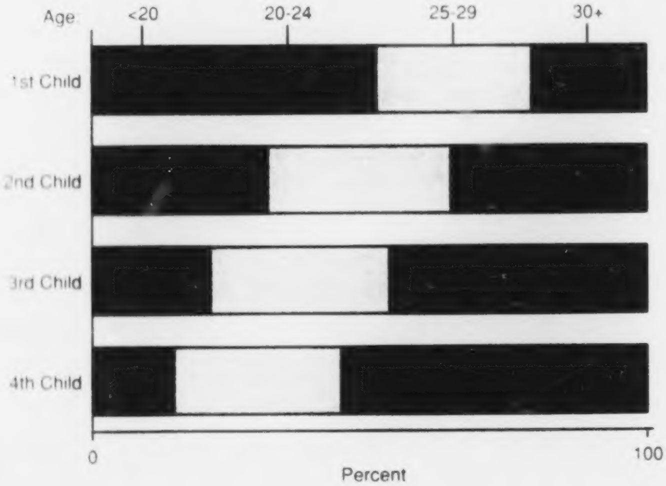

Table 3.3
Number and Percent Distribution of Live Births

By Age of Mother Within Birth Order

Age Group	Total Live Births	Live Birth Order 1st Child	2nd Child	3rd Child	4th Child	5th Child	6th+ Child
American Indian and Alaska Native, IHS Service Area, 1991–1993							
All Ages	[1] 101,019	32,915	26,603	18,608	11,166	5,976	5,751
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	20.1	45.1	16.3	5.1	1.3	0.3	–
20–24 years	33.2	35.1	43.1	35.2	24.3	15.0	5.7
25–29 years	24.7	13.0	25.0	33.6	37.3	34.9	26.1
30–34 years	14.8	5.1	11.5	18.6	25.2	31.3	36.4
35–39 years	6.0	1.4	3.6	6.5	10.2	15.5	24.8
40–49 years	1.2	0.3	0.5	1.0	1.7	3.0	7.0
U.S. All Races, 1992							
All Ages	[2] 4,046,559	1,632,448	1,311,397	665,150	260,751	98,448	78,365
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	12.7	23.7	7.8	3.3	1.5	0.5	0.1
20–24 years	26.3	30.4	27.2	22.2	18.1	13.8	6.2
25–29 years	29.0	26.3	31.5	31.4	30.2	28.5	21.2
30–34 years	22.0	14.5	24.3	29.4	31.5	32.7	33.6
35–39 years	8.5	4.5	8.2	12.0	15.8	19.9	28.4
40–49 years	1.4	0.7	1.1	1.7	2.9	4.6	10.6
U.S. White, 1992							
All Ages	[3] 3,188,147	1,307,908	1,056,557	517,417	190,948	66,236	49,081
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	10.9	20.8	5.9	2.0	0.7	0.2	0.1
20–24 years	25.5	30.6	26.0	19.5	14.1	9.3	3.5
25–29 years	30.1	27.8	32.8	32.3	30.3	27.0	17.0
30–34 years	23.3	15.3	25.7	31.7	34.4	35.7	34.6
35–39 years	8.8	4.8	8.5	12.7	17.3	22.6	32.3
40–49 years	1.4	0.7	1.1	1.8	3.2	5.2	12.5

[1] Excludes 387 American Indian and Alaska Native births (0.4 percent) with birth order not reported.

[2] Excludes 18,455 U.S. All Races births (0.5 percent) with birth order not reported.

[3] Excludes 13,531 U.S. White births (0.4 percent) with birth order not reported.

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Chart 3.6
Maternal Death Rates

The maternal death rate for American Indians and Alaska Natives dropped from 27.7 maternal deaths per 100,000 live births in 1972-1974 to 6.9 in 1991-1993, a decrease of 75 percent. During 1991-1993, there were only 7 Indian maternal deaths.

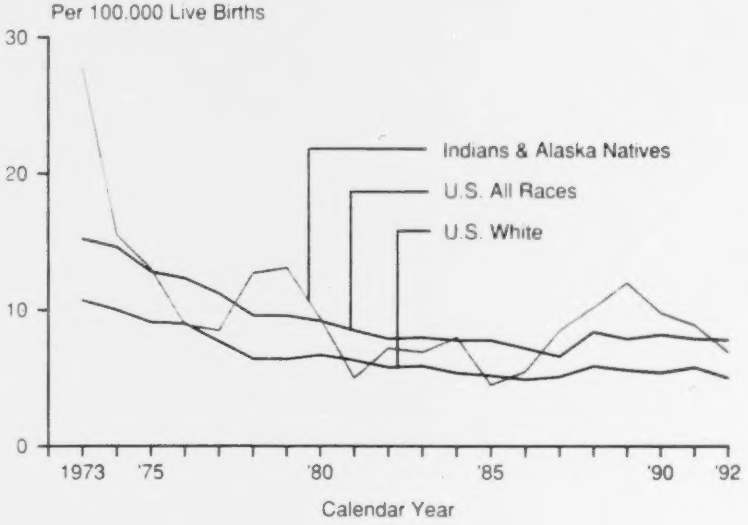

Table 3.6
Maternal Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1958-1993

Rate per 100,000 Live Births

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White	Ratio of Indian to:	
	Number	Rate	Number	Rate	Rate	U.S. All Races	U.S. White
(1993)	2						
1991–1993 (1992)	2	6.9	318	7.8	5.0	0.9	1.4
1990–1992 (1991)	3	8.9	323	7.9	5.8	1.1	1.5
1989–1991 (1990)	4	9.8	343	8.2	5.4	1.2	1.8
1988–1990 (1989)	3	12.0	320	7.9	5.6	1.5	2.1
1987–1989 (1988)	5	10.2	330	8.4	5.9	1.2	1.7
1986–1988 (1987)	2	8.5	251	6.6	5.1	1.3	1.7
1985–1987 (1986)	1	5.5	272	7.2	4.9	0.8	1.1
1984–1986 (1985)	2	4.5	295	7.8	5.2	0.6	0.9
1983–1985 (1984)	1	8.0	285	7.8	5.4	1.0	1.5
1982–1984 (1983)	4	6.9	290	8.0	5.9	0.9	1.2
1981–1983 (1982)	1	7.2	292	7.9	5.8	0.9	1.2
1980–1982 (1981)	1	5.0	309	8.5	6.3	0.6	0.8
1979–1981 (1980)	2	9.4	334	9.2	6.7	1.0	1.4
1978–1980 (1979)	4	13.1	336	9.6	6.4	1.4	2.0
1977–1979 (1978)	3	12.7	321	9.6	6.4	1.3	2.0
1976–1978 (1977)	1	8.5	373	11.2	7.7	0.8	1.1
1975–1977 (1976)	1	8.9	390	12.3	9.0	0.7	1.0
1974–1976 (1975)	3	13.0	340	12.8	9.1	1.0	1.4
1973–1975 (1974)	3	15.5	462	14.6	10.0	1.1	1.6
1972–1974 (1973)	2	27.7	477	15.2	10.7	1.8	2.6
(1972)	9						
1957–1959 (1958)	16	82.6	1,581	37.6	26.3	2.2	3.1

NOTE: Data are presented above for the year in which maternal mortality data were first collected (1958) and as close to the year in which IHS was established (1955) as is possible. For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native maternal mortality rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single years specified. Maternal deaths include deaths with ICD-9 codes 630–676.

Chart 3.7
Infant Mortality Rates

The infant mortality rate for American Indians and Alaska Natives dropped from 22.2 infant deaths per 1,000 live births in 1972-1974 to 8.8 in 1991-1993, a decrease of 60 percent. The U.S. All Races and White populations' rates for 1992 were 8.5 and 6.9, respectively.

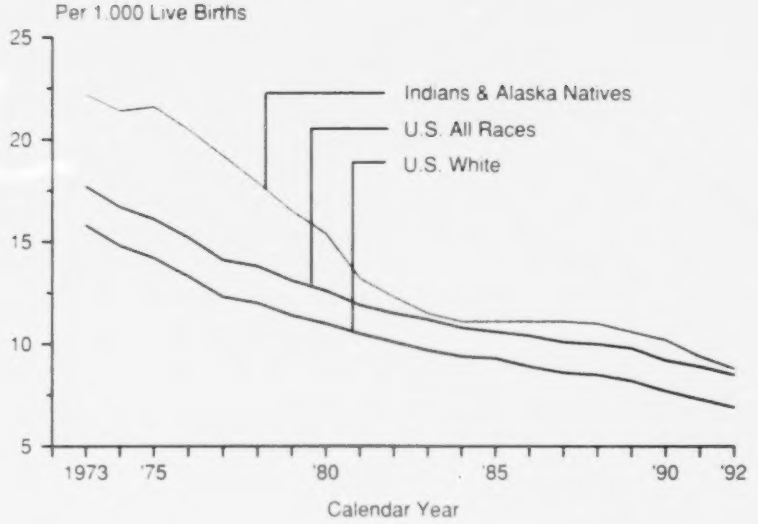

Table 3.7
Infant Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1992

Rate per 1,000 Live Births

Calendar Year(s)	Indian and Alaska Native	U.S. All Races	U.S. White	Ratio of Indian and Alaska Native to: U.S. All Races	Ratio of Indian and Alaska Native to: U.S. White
1991–1993 (1992)	8.8	8.5	6.9	1.0	1.3
1990–1992 (1991)	9.4	8.9	7.3	1.1	1.3
1989–1991 (1990)	10.2	9.2	7.7	1.1	1.3
1988–1990 (1989)	10.6	9.8	8.2	1.1	1.3
1987–1989 (1988)	11.0	10.0	8.5	1.1	1.3
1986–1988 (1987)	11.1	10.1	8.6	1.1	1.3
1985–1987 (1986)	11.1	10.4	8.9	1.1	1.2
1984–1986 (1985)	11.1	10.6	9.3	1.0	1.2
1983–1985 (1984)	11.1	10.8	9.4	1.0	1.2
1982–1984 (1983)	11.5	11.2	9.7	1.0	1.2
1981–1983 (1982)	12.3	11.5	10.1	1.1	1.2
1980–1982 (1981)	13.2	11.9	10.5	1.1	1.3
1979–1981 (1980)	15.4	12.6	11.0	1.2	1.4
1978–1980 (1979)	16.5	13.1	11.4	1.3	1.4
1977–1979 (1978)	17.9	13.8	12.0	1.3	1.5
1976–1978 (1977)	19.2	14.1	12.3	1.4	1.6
1975–1977 (1976)	20.5	15.2	13.3	1.3	1.5
1974–1976 (1975)	21.6	16.1	14.2	1.3	1.5
1973–1975 (1974)	21.4	16.7	14.8	1.3	1.4
1972–1974 (1973)	22.2	17.7	15.8	1.3	1.4
1954–1956 (1955)	62.7	26.4	23.6	2.4	2.7

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. U.S. rates are for the single years specified.

Chart 3.8

Infant Mortality Rates by Age

The neonatal mortality rate for American Indians and Alaska Natives in 1991-1993 was 26 percent lower than the U.S. All Races rate and 7 percent lower than the U.S. White rate for 1992. On the contrary, the postneonatal rate for Indians was 1.6 and 1.9 times the U.S. All Races and White populations' rates, respectively.

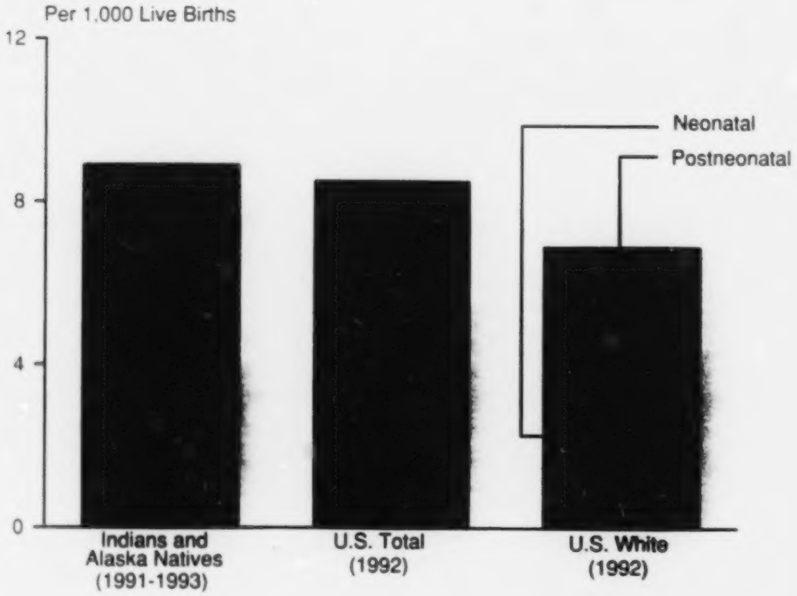

Table 3.8
Infant Mortality Rates by Age

American Indians and Alaska Natives, IHS Service Area, 1972-74 to 1991-93, and U.S. All Races and White Populations, 1973-1992

Rate per 1,000 Live Births

American Indian and Alaska Native

Calendar Years	Infant Mortality Rate	Neonatal Under 28 Days	Postneonatal 28 Days–11 Months
1991–1993	8.8	4.0	4.9
1990–1992	9.4	4.3	5.1
1989–1991	10.2	4.7	5.5
1988–1990	10.6	4.8	5.8
1987–1989	11.0	5.1	5.9
1986–1988	11.1	5.2	5.9
1985–1987	11.1	5.3	5.9
1984–1986	11.1	5.0	6.0
1983–1985	11.1	5.1	6.0
1982–1984	11.5	5.1	6.4
1981–1983	12.3	5.3	7.0
1980–1982	13.2	5.9	7.3
1979–1981	15.4	7.2	8.1
1978–1980	16.5	8.2	8.4
1977–1979	17.9	8.9	9.0
1976–1978	19.2	9.3	9.9
1975–1977	20.5	10.0	10.5
1974–1976	21.6	10.4	11.2
1973–1975	21.4	10.4	11.1
1972–1974	22.2	10.2	12.0

	U.S. All Races			U.S. White		
Calendar Year	Infant Mortality Rate	Neonatal Under 28 Days	Postneonatal 28 Days–11 Months	Infant Mortality Rate	Neonatal Under 28 Days	Postneonatal 28 Days–11 Months
1992	8.5	5.4	3.1	6.9	4.3	2.6
1991	8.9	5.6	3.4	7.3	4.5	2.8
1990	9.2	5.8	3.4	7.7	4.9	2.8
1989	9.8	6.2	3.6	8.2	5.2	3.0
1988	10.0	6.3	3.7	8.5	5.4	3.1
1987	10.1	6.5	3.6	8.6	5.5	3.1
1986	10.4	6.7	3.6	8.9	5.8	3.1
1985	10.6	7.0	3.7	9.3	6.1	3.2
1984	10.8	7.0	3.8	9.4	6.2	3.3
1983	11.2	7.3	3.9	9.7	6.4	3.3
1982	11.5	7.7	3.8	10.1	6.8	3.3
1981	11.9	8.0	3.9	10.5	7.1	3.4
1980	12.6	8.5	4.1	11.0	7.5	3.5
1979	13.1	8.9	4.2	11.4	7.9	3.5
1978	13.8	9.5	4.3	12.0	8.4	3.6
1977	14.1	9.9	4.2	12.3	8.7	3.6
1976	15.2	10.9	4.3	13.3	9.7	3.6
1975	16.1	11.6	4.5	14.2	10.4	3.8
1974	16.7	12.3	4.4	14.8	11.1	3.7
1973	17.7	13.0	4.7	15.8	11.8	4.0

NOTE: Starting in 1972 data on infant mortality by age are first available, and are shown above, for the specific counties in the IHS service area.

Chart 3.9

Leading Causes of Infant Deaths (Birth to Under 1 Year)

The two leading causes of infant deaths for American Indians and Alaska Natives (1991-1993) were sudden infant death syndrome (SIDS) and congenital anomalies. For the U.S. All Races and White populations (1992), the order was reversed.

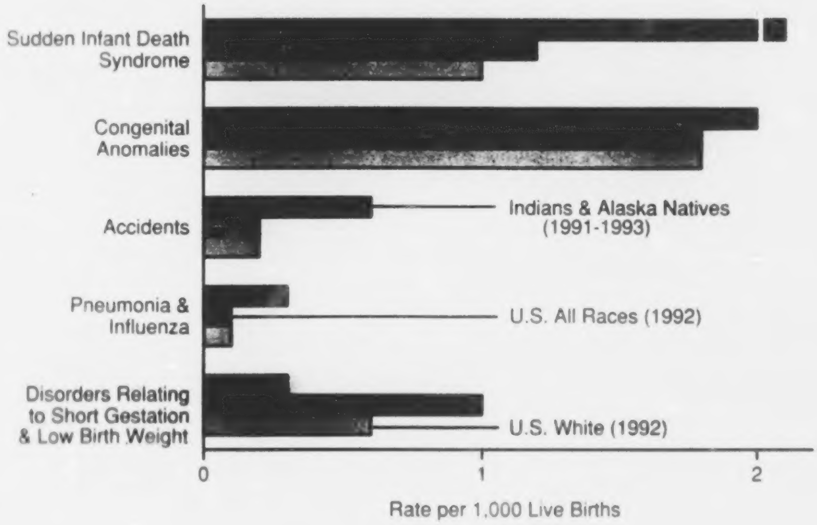

Chart 3.10

Leading Causes of Neonatal Deaths (Under 28 Days)

The two leading causes of neonatal deaths for American Indians and Alaska Natives (1991-1993) and the U.S. All Races and White populations (1992) were congenital anomalies and disorders related to short gestation and low birth weight.

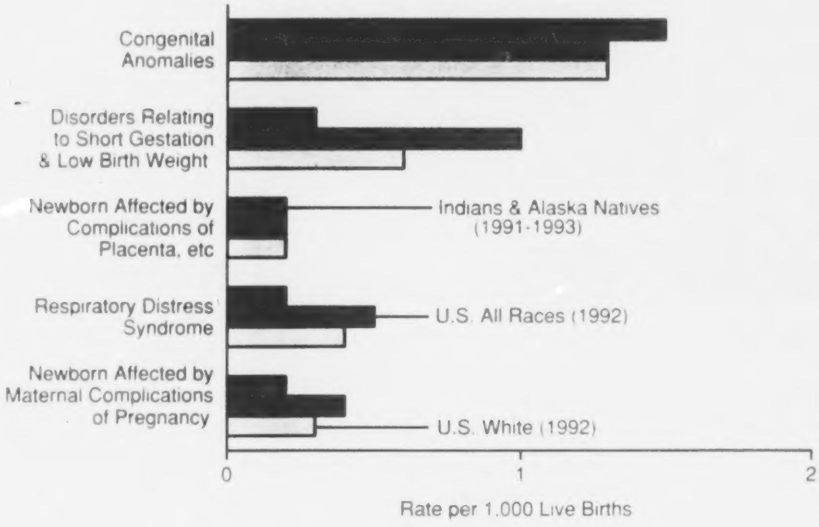

Chart 3.11
Leading Causes of Postneonatal Deaths (28 Days to Under 1 Year)

The two leading causes of postneonatal deaths for American Indians and Alaska Natives (1991-1993) and the U.S. All Races and White populations (1992) were sudden infant death syndrome (SIDS) and congenital anomalies.

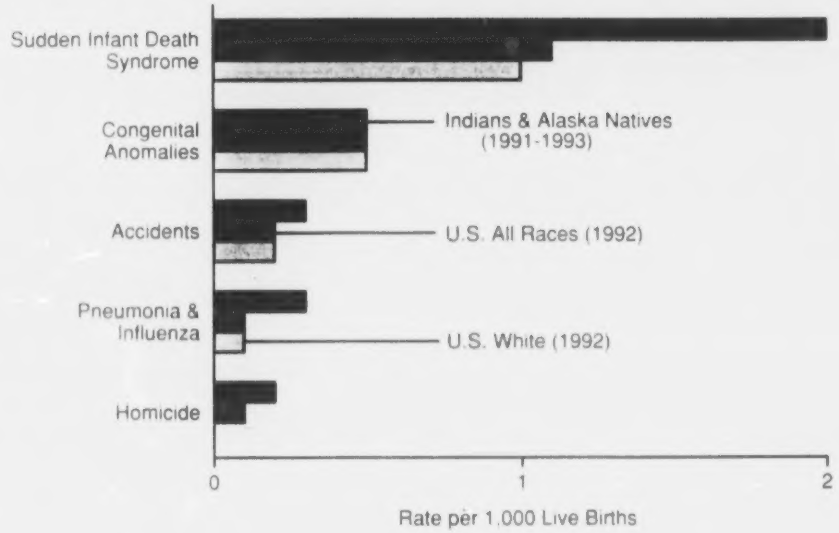

Table 3.9
Leading Causes of Infant Deaths by Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 1,000 Live Births

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
Total Infant Deaths						
All Causes	895	8.8	8.5	6.9	1.0	1.3
Sudden infant death syndrome, 798.0	217	2.1	1.2	1.0	1.8	2.1
Congenital anomalies, 740–759	206	2.0	1.8	1.8	1.1	1.1
Accidents, E800–E949	62	0.6	0.2	0.2	3.0	3.0
Pneumonia and influenza, 480–487	35	0.3	0.1	0.1	3.0	3.0
Disorders relating to short gestation and low birthweight, 765	30	0.3	1.0	0.6	0.3	0.5
Respiratory distress syndrome, 769	29	0.3	0.5	0.4	0.6	0.8
Newborn affected by complications of placenta, cord, and membranes, 762	24	0.2	0.2	0.2	1.0	1.0
Newborn affected by maternal complications of pregnancy, 761	22	0.2	0.4	0.3	0.5	0.7
Homicide, E960-E969	16	0.2	0.1	0.1	2.0	2.0
Intrauterine hypoxia and birth asphyxia, 768	13	0.1	0.2	0.1	0.5	1.0
All other causes	241					
Neonatal Deaths						
All Causes	402	4.0	5.4	4.3	0.7	0.9
Congenital anomalies, 740–759	151	1.5	1.3	1.3	1.2	1.2
Disorders relating to short gestation and low birthweight, 765	29	0.3	1.0	0.6	0.3	0.5
Newborn affected by complications of placenta, cord, and membranes, 762	24	0.2	0.2	0.2	1.0	1.0
Respiratory distress syndrome, 769	24	0.2	0.5	0.4	0.4	0.5
Newborn affected by maternal complications of pregnancy, 761	19	0.2	0.4	0.3	0.5	0.7
Sudden infant death syndrome, 798.0	14	0.1	0.1	0.1	1.0	1.0
Intrauterine hypoxia and birth asphyxia, 768	12	0.1	0.1	0.1	1.0	1.0
Infections specific to the perinatal period, 771	11	0.1	0.2	0.2	0.5	0.5
Pneumonia and influenza, 480-487	7	0.1	0.0	0.0	*	*
Newborn affected by maternal conditions which may be unrelated to present pregnancy, 760	6	0.1	0.0	0.0	*	*
All other causes	105					
Postneonatal Deaths						
All Causes	493	4.9	3.1	2.6	1.6	1.9
Sudden infant death syndrome, 798.0	203	2.0	1.1	1.0	1.8	2.0
Congenital anomalies, 740–759	55	0.5	0.5	0.5	1.0	1.0
Accidents, E800–E949	33	0.3	0.2	0.2	1.5	1.5
Pneumonia and influenza, 480–487	28	0.3	0.1	0.1	3.0	3.0
Homicide, E960–E969	16	0.2	0.1	0.0	2.0	*
Septicemia, 038	7	0.1	0.1	0.0	1.0	*
Meningitis, 320–322	7	0.1	0.0	0.0	*	*
Viral diseases, 045–079	5	0.0	0.0	0.0	*	*
Bronchitis and bronchiolitis, 466, 490–491	5	0.0	0.0	0.0	*	*
Respiratory distress syndrome, 769	5	0.0	0.0	0.0	*	*
All other causes	129					

NOTE: 0.0 Rounds to zero. * Not applicable.

SOURCE: National Center for Health Statistics (NCHS), U.S. infant mortality rates (all ages)—Monthly Vital Statistics Report, Advance Report of Final Mortality Statistics, 1992, Vol. 43 No. 6, Supplement, March 22, 1995, Table 25; and Infant mortality rates by age and race, 1992, unpublished, from NCHS.

PART 4 - GENERAL MORTALITY STATISTICS

Chart 4.1
Mortality Rates, Leading Causes: Ages 1 to 4 Years

The two leading causes of death for American Indians and Alaska Natives, ages 1 to 4 (1991-1993), were accidents and homicide. For the U.S. All Races and White populations (1992), they were accidents and congenital anomalies.

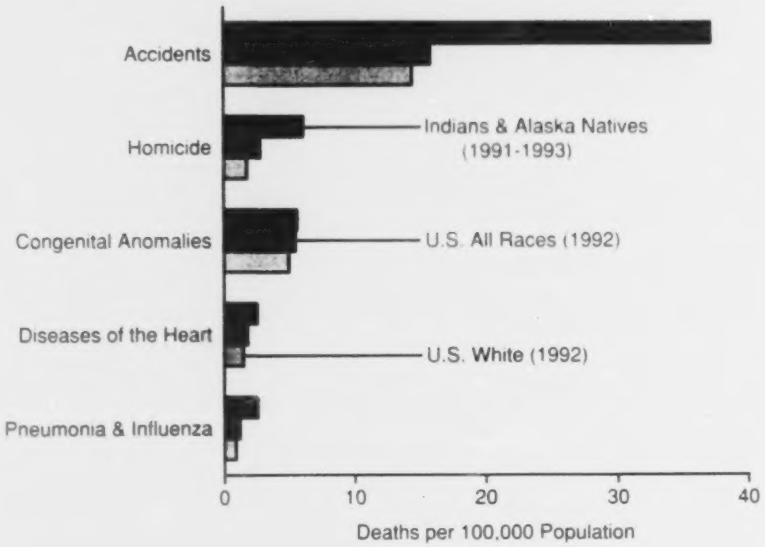

Table 4.1
Ten Leading Causes of Death for Decedents 1 to 4 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native Number	American Indian and Alaska Native Rate	U.S. All Races Rate	U.S. White Rate	Ratio American Indian and Alaska Native to: U.S. All Races	Ratio American Indian and Alaska Native to: U.S. White
All Causes	271	75.2	43.6	38.1	1.7	2.0
Accidents	134	37.2	15.9	14.5	2.3	2.6
Motor vehicle	57	15.8	5.5	5.1	2.9	3.1
Other accidents	77	21.4	10.4	9.5	2.1	2.3
Homicide and legal intervention	22	6.1	2.8	1.8	2.2	3.4
Congenital anomalies	20	5.6	5.5	5.0	1.0	1.1
Diseases of the heart	9	2.5	1.8	1.5	1.4	1.7
Pneumonia and influenza	9	2.5	1.2	0.9	2.1	2.8
Malignant neoplasms	7	1.9	3.1	3.2	0.6	0.6
Meningitis, 320-322	4	1.1	0.2	0.2	5.5	5.5
Septicemia, 038	2	0.6	0.5	0.4	1.2	1.5
Certain conditions originating in the perinatal period	2	0.6	0.7	0.5	0.9	1.2
Chronic obstructive pulmonary diseases and allied conditions	2	0.6	0.4	0.3	1.5	2.0
All other causes	60					

NOTE: For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes.

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Chart 4.2

Mortality Rates, Leading Causes: Ages 5 to 14 Years

The two leading causes of death for American Indians and Alaska Natives, ages 5 to 14 (1991-1993), were accidents and homicide. For the U.S. All Races and White populations (1992), they were accidents and malignant neoplasms.

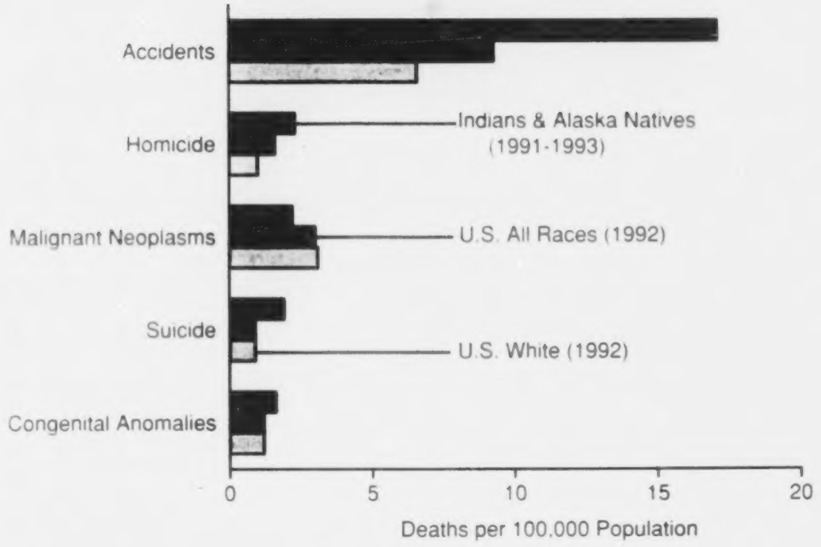

Table 4.2

Ten Leading Causes of Death for Decedents 5 to 14 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
All Causes	267	32.5	22.5	20.6	1.4	1.6
Accidents	141	17.1	9.3	6.6	1.8	2.6
Motor vehicle	68	8.3	5.2	5.1	1.6	1.6
Other accidents	73	8.9	4.1	3.5	2.2	2.5
Homicide and legal intervention	19	2.3	1.6	1.0	1.4	2.3
Malignant neoplasms	18	2.2	3.0	3.1	0.7	0.7
Suicide	16	1.9	0.9	0.9	2.1	2.1
Congenital anomalies	13	1.6	1.2	1.2	1.3	1.3
Diseases of the heart	7	0.9	0.8	0.6	1.1	1.5
Septicemia, 038	3	0.4	0.1	0.1	4.0	4.0
Pneumonia and influenza	3	0.4	0.3	0.3	1.3	1.3
Viral hepatitis, 070	2	0.2	0.0	0.0	NA	NA
Meningitis, 320-322	2	0.2	0.1	0.1	2.0	2.0
All other causes	43					

NOTE For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes. 0.0 Rounds to zero. NA Not applicable.

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Chart 4.3
Mortality Rates, Leading Causes: Ages 15 to 24 Years

The two leading causes of death for American Indians and Alaska Natives, ages 15 to 24 years (1991-1993), and U.S. Whites (1992) were accidents and suicide. For the U.S. All Races (1992), they were accidents and homicide.

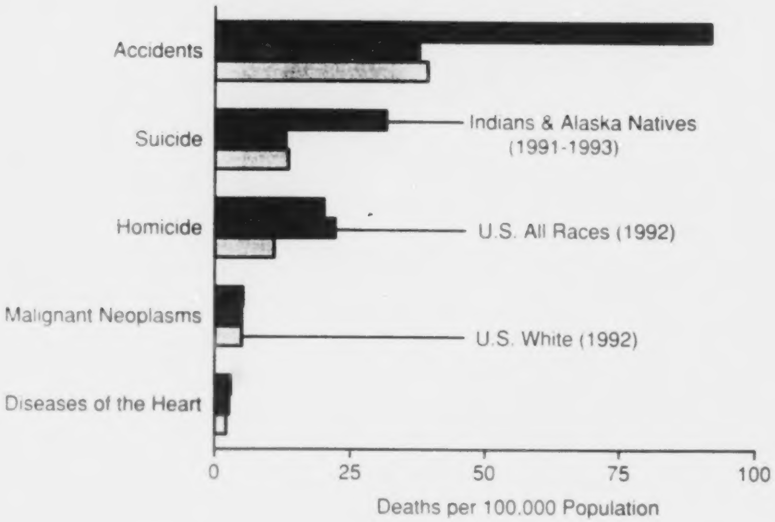

Table 4.3
Ten Leading Causes of Death for Decedents 15 to 24 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
All Causes	1,182	174.9	95.6	83.7	1.8	2.1
Accidents	621	91.9	37.8	39.4	2.4	2.5
Motor vehicle	452	66.9	28.5	30.3	2.3	2.2
Other accidents	169	25.0	9.3	9.1	2.7	2.7
Suicide	214	31.7	13.0	13.5	2.4	2.3
Homicide and legal intervention	136	20.1	22.0	10.9	0.9	1.8
Malignant neoplasms	35	5.2	5.0	5.0	1.0	1.0
Diseases of the heart	20	3.0	2.7	2.2	1.1	1.4
Cerebrovascular diseases	9	1.3	0.5	0.5	2.6	2.6
Pneumonia and influenza	8	1.2	0.6	0.6	2.0	2.0
Chronic liver disease and cirrhosis	7	1.0	0.1	0.1	10.0	10.0
Complications of pregnancy, childbirth and the puerperium, 630-676	6	0.9	0.3	0.3	3.0	3.0
Congenital anomalies	5	0.7	1.2	1.3	0.6	0.5
All other causes	121					

NOTE: For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes.

Chart 4.4
Mortality Rates, Leading Causes: Ages 25 to 44 Years

The two leading causes of death for American Indians and Alaska Natives, ages 25 to 44 years (1991-1993), were accidents and chronic liver disease and cirrhosis. For the U.S. All Races population (1992), they were accidents and human immunodeficiency virus (HIV) infection, while for the U.S. White population they were accidents and malignant neoplasms. HIV infection was seventh for Indians and third for Whites.

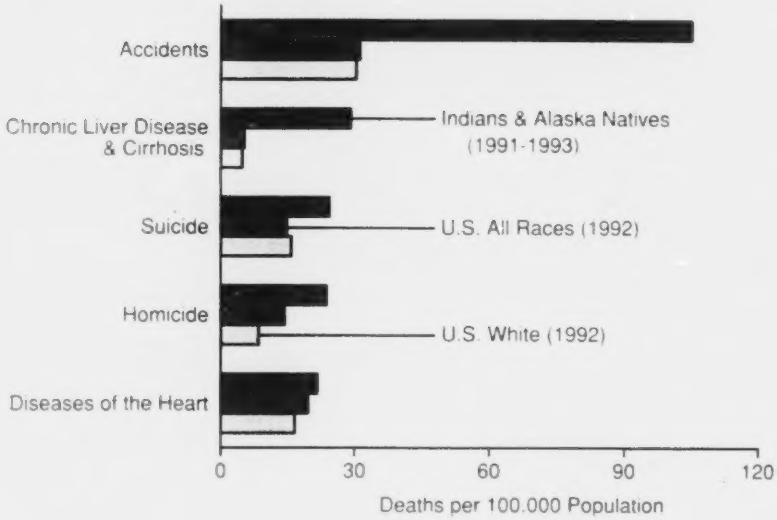

Table 4.4
Ten Leading Causes of Death for Decedents 25 to 44 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
All Causes	3,402	302.0	181.9	157.1	1.7	1.9
Accidents	1,186	105.3	31.3	30.5	3.4	3.5
Motor vehicle	716	63.6	17.1	16.9	3.7	3.8
Other accidents	470	41.7	14.3	13.6	2.9	3.1
Chronic liver disease and cirrhosis	329	29.2	5.3	4.8	5.5	6.1
Suicide	275	24.4	14.8	15.8	1.6	1.5
Homicide and legal intervention	267	23.7	14.3	8.5	1.7	2.8
Diseases of the heart	243	21.6	19.6	16.6	1.1	1.3
Malignant neoplasms	195	17.3	26.9	25.6	0.6	0.7
Human immunodeficiency virus (HIV) infection, 042-044	78	6.9	29.9	23.3	0.2	0.3
Pneumonia and influenza	70	6.2	2.4	1.8	2.6	3.4
Cerebrovascular diseases	50	4.4	4.1	3.1	1.1	1.4
Diabetes mellitus	38	3.4	2.7	2.5	1.3	1.4
All other causes	671					

NOTE: For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes.

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Chart 4.5

Mortality Rates, Leading Causes: Ages 45 to 54 Years

The two leading causes of death for American Indians and Alaska Natives, ages 45 to 54 years (1991-1993), were diseases of the heart and malignant neoplasms. This ranking was in reverse order for the U.S. All Races and White populations (1992).

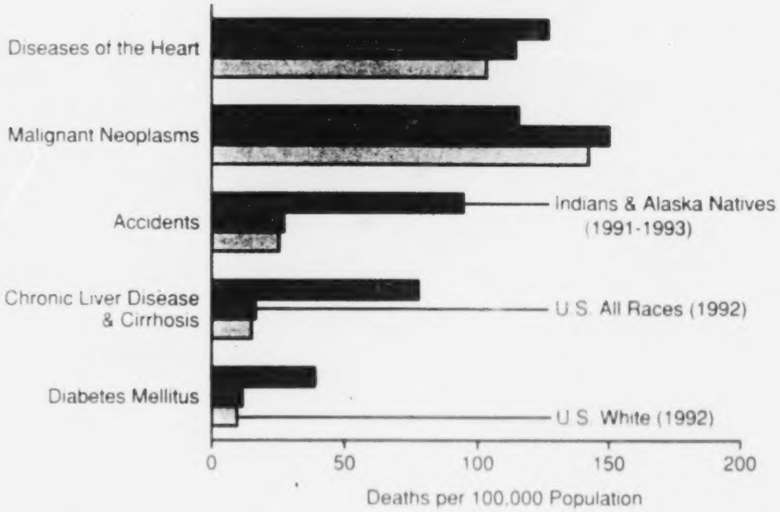

Table 4.5

Ten Leading Causes of Death for Decedents 45 to 54 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
All Causes	1,972	655.7	456.1	412.0	1.4	1.6
Diseases of the heart	382	127.0	114.6	103.6	1.1	1.2
Malignant neoplasms	348	115.7	150.3	142.4	0.8	0.8
Accidents	285	94.8	27.3	25.5	3.5	3.7
Motor vehicle	146	48.5	13.6	13.0	3.6	3.7
Other accidents	139	46.2	13.7	12.6	3.4	3.7
Chronic liver disease and cirrhosis	234	77.8	16.7	15.2	4.7	5.1
Diabetes mellitus	117	38.9	11.7	9.7	3.3	4.0
Cerebrovascular diseases	50	16.6	17.5	13.8	0.9	1.2
Pneumonia and influenza	41	13.6	6.0	5.0	2.3	2.7
Homicide and legal intervention	40	13.3	7.5	5.4	1.8	2.5
Suicide	38	12.6	14.7	15.8	0.9	0.8
Septicemia, 038	21	7.0	3.1	2.4	2.3	2.9
All other causes	416					

NOTE: For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes.

Chart 4.6

Mortality Rates, Leading Causes: Ages 55 to 64 Years

The two leading causes of death for American Indians and Alaska Natives, ages 55 to 64 years (1991-1993), were diseases of the heart and malignant neoplasms. This ranking was in reverse order for the U.S. All Races and White populations (1992).

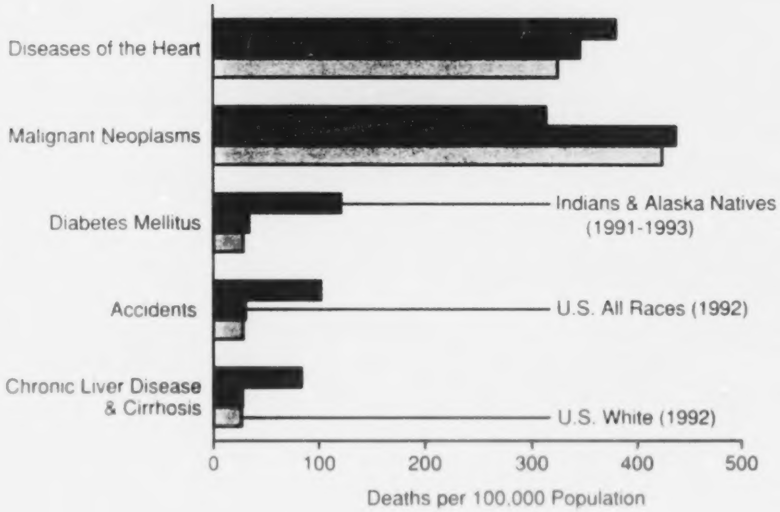

Table 4.6

Ten Leading Causes of Death for Decedents 55 to 64 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S White Rate	Ratio American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S White
All Causes	2,936	1,415.4	1,151.7	1,086.2	1.2	1.3
Diseases of the heart	790	380.8	346.5	325.6	1.1	1.2
Malignant neoplasms	652	314.3	437.8	424.7	0.7	0.7
Diabetes mellitus	252	121.5	34.0	28.6	3.6	4.2
Accidents	212	102.2	30.6	28.5	3.3	3.6
Motor vehicle	112	54.0	13.7	13.0	3.9	4.2
Other accidents	100	48.2	16.8	15.6	2.9	3.1
Chronic liver disease and cirrhosis	173	83.4	27.6	26.8	3.0	3.1
Cerebrovascular diseases	122	58.8	46.4	39.1	1.3	1.5
Pneumonia and influenza	74	35.7	16.5	14.8	2.2	2.4
Chronic obstructive pulmonary diseases and allied conditions	73	35.2	48.3	49.6	0.7	0.7
Nephritis, nephrotic syndrome, and nephrosis	45	21.7	8.2	6.3	2.6	3.4
Septicemia, 038	35	16.9	7.8	6.4	2.2	2.6
All other causes	508					

NOTE: For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes.

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Chart 4.7
Mortality Rates, Leading Causes: Ages 65+ Years

The two leading causes of death for American Indians and Alaska Natives, ages 65 and over (1991-1993), were diseases of the heart and malignant neoplasms. For the U.S. All Races and White populations (1992), they were also diseases of the heart and malignant neoplasms.

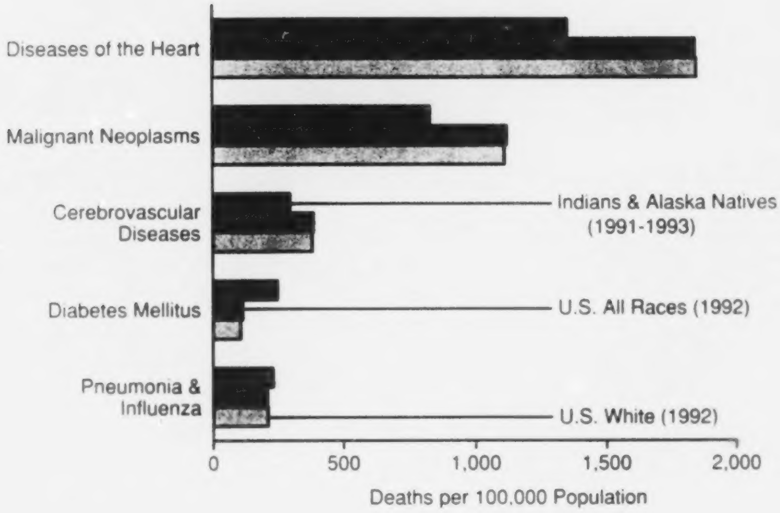


Table 4.7
Ten Leading Causes of Death for Decedents 65 Years Old and Older

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native Number	American Indian and Alaska Native Rate	U.S. All Races Rate	U.S. White Rate	Ratio American Indian and Alaska Native to: U.S. All Races	Ratio American Indian and Alaska Native to: U.S. White
All Causes	9,292	4,255.2	4,880.6	4,871.2	0.9	0.9
Diseases of the heart	2,955	1,353.2	1,844.5	1,849.7	0.7	0.7
Malignant neoplasms	1,814	830.7	1,121.8	1,113.6	0.7	0.7
Cerebrovascular diseases	651	298.1	388.5	384.3	0.8	0.8
Diabetes mellitus	543	248.7	115.7	107.3	2.1	2.3
Pneumonia and influenza	503	230.3	209.1	212.3	1.1	1.1
Chronic obstructive pulmonary diseases and allied conditions	375	171.7	242.2	253.2	0.7	0.7
Accidents	329	150.7	82.5	82.4	1.8	1.8
Motor vehicle	103	47.2	21.9	22.0	2.2	2.1
Other accidents	226	103.5	60.7	60.5	1.7	1.7
Nephritis, nephrotic syndrome, and nephrosis	198	90.7	58.0	54.3	1.6	1.7
Chronic liver disease and cirrhosis	156	71.4	32.4	32.7	2.2	2.2
Septicemia, 038	133	60.9	49.2	45.8	1.2	1.3
All other causes	1,635					

NOTE: For ICD-9 codes utilized not shown above, refer to Glossary of ICD-9 Codes.

64

Chart 4.8

Mortality Rates for Leading Causes, Indians and Alaska Natives (1991-1993)

The two leading causes of death for American Indians and Alaska Natives (1991-1993) and the U.S. All Races and White populations (1992) were diseases of the heart and malignant neoplasms. This is a change for the Indian population; accidents had been the second leading cause of death.

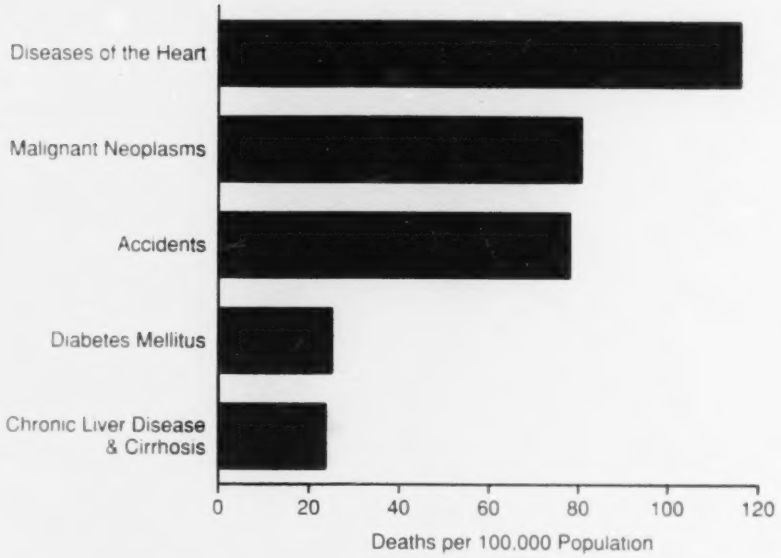


Table 4.8

Ten Leading Causes of Death for Decedents of All Ages

American Indians and Alaska Natives, IHS Service Area, 1991-1993

Rate per 100,000 Population

Cause of Death and ICD-9 Code(s)	Number	Rate
All Causes	29,245	530.7
Diseases of the heart, 390–398, 402, 404–429	4,424	116.1
Malignant neoplasms, 140–208	3,072	80.6
Accidents, E800–E949	2,972	78.0
Motor vehicle, E810–E825	1,664	43.7
Other accidents, E800–E807, E826–E949	1,308	34.3
Diabetes mellitus, 250	953	25.0
Chronic liver disease and cirrhosis, 571	899	23.6
Cerebrovascular diseases, 430–438	887	23.3
Pneumonia and influenza, 480–487	743	19.5
Suicide, E950–E959	581	15.2
Homicide and legal intervention, E960–E978	535	14.0
Chronic obstructive pulmonary diseases and allied conditions, 490–496	488	12.8
All other causes	4,675	

Chart 4.9

Mortality Rates, Leading Causes: Males, Indians and Alaska Natives (1991-1993)

The two leading causes of death for Indian males (1991-1993) were diseases of the heart and accidents. For U.S. All Races and White males (1992), they were diseases of the heart and malignant neoplasms.

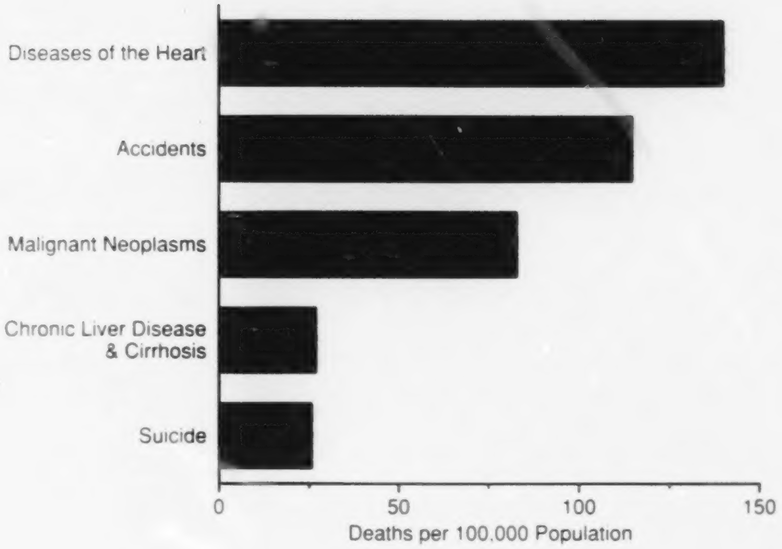


Chart 4.10

Mortality Rates, Leading Causes: Females, Indians and Alaska Natives (1991-1993)

The two leading causes of death for Indian females (1991-1993) were diseases of the heart and malignant neoplasms. The same was true for U.S. All Races and White females in 1992.

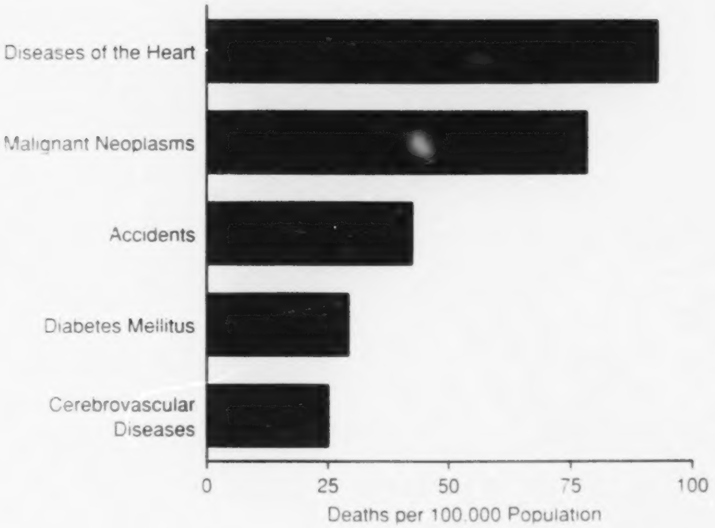


Table 4.9
Leading Causes of Death by Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993

Rate per 100,000 Population

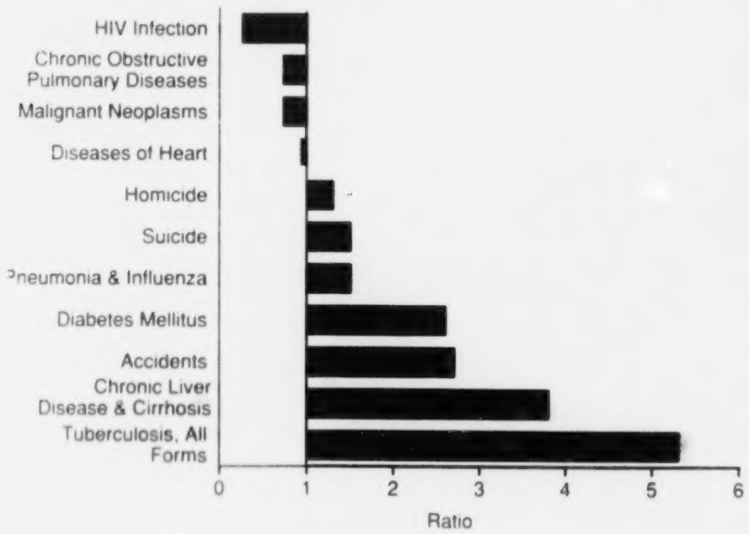
Male

Cause of Death and ICD-9 Code(s)	Number	Rate
All Causes	11,686	622.6
Diseases of the heart, 390–398, 402, 404–429	2,627	140.0
Accidents, E800–E949	2,152	114.7
Motor vehicle, E810–E825	1,142	60.8
Other accidents, E800–E807, E826–E949	1,010	53.8
Malignant neoplasms, 140–208	1,555	82.9
Chronic liver disease and cirrhosis, 571	503	26.8
Suicide, E950–E959	480	25.6
Pneumonia and influenza, 480–487	429	22.9
Homicide and legal intervention, E960–E978	411	21.9
Cerebrovascular diseases, 430–438	403	21.5
Diabetes mellitus, 250	388	20.7
Chronic obstructive pulmonary diseases and allied conditions, 490–496	261	13.9
All other causes	2,477	

Female

Cause of Death and ICD-9 Code(s)	Number	Rate
All Causes	8,543	441.5
Diseases of the heart, 390–398, 402, 404–429	1,797	92.9
Malignant neoplasms, 140–208	1,517	78.4
Accidents, E800–E949	820	42.4
Motor vehicle, E810–E825	522	27.0
Other accidents, E800–E807, E826–E949	298	15.4
Diabetes mellitus, 250	565	29.2
Cerebrovascular diseases, 430–438	484	25.0
Chronic liver disease and cirrhosis, 571	396	20.5
Pneumonia and influenza, 480-487	314	16.2
Chronic obstructive pulmonary diseases and allied conditions, 490–496	227	11.7
Nephritis, nephrotic syndrome, and nephrosis, 580-589	147	7.6
Congenital anomalies, 740-759	133	6.9
All other causes	2,143	

Chart 4.11
Selected Age-Adjusted Death Rates, Ratio of Indians (1991-1993) to U.S. All Races (1992)



The American Indian and Alaska Native age-adjusted mortality rates for 1991-1993 were above those of the U.S. All Races (1992) for tuberculosis, chronic liver disease and cirrhosis, accidents, diabetes mellitus, pneumonia and influenza, suicide, and homicide. Indian rates were below those of the U.S. All Races for HIV infection, chronic obstructive pulmonary diseases, malignant neoplasms, and diseases of the heart.

Table 4.11
Age-Adjusted Mortality Rates

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Cause of Death	Indian and Alaska Native	United States			Ratio American Indian and Alaska Native to:	
		All Races	White	All Other	U.S. All Races	U.S. White
All Causes	594.1	504.5	477.5	660.2	1.2	1.2
Major cardiovascular diseases	165.5	180.4	172.8	229.9	0.9	1.0
Diseases of heart	132.4	144.3	139.2	177.2	0.9	1.0
Cerebrovascular diseases	25.3	26.2	24.2	39.9	1.0	1.0
Atherosclerosis	2.0	2.4	2.4	2.3	0.8	0.8
Hypertension	1.7	2.0	1.6	5.3	0.9	1.1
Accidents	83.4	29.4	28.8	33.4	2.8	2.9
Motor vehicle	47.0	15.8	15.9	15.7	3.0	3.0
All other	36.4	13.7	12.9	17.7	2.7	2.8
Malignant neoplasms	98.8	133.1	129.9	154.6	0.7	0.8
Chronic liver disease and cirrhosis	30.1	8.0	7.7	10.3	3.8	3.9
Diabetes mellitus	31.7	11.9	10.5	21.8	2.7	3.0
Pneumonia and influenza	19.2	12.7	12.1	15.7	1.5	1.6
Suicide	16.2	11.1	11.8	6.9	1.5	1.4
Homicide	14.6	10.5	6.1	31.0	1.4	2.4
Chronic obstructive pulmonary diseases and allied conditions	14.8	19.9	20.4	14.7	0.7	0.7
Tuberculosis, all forms	2.1	0.4	0.3	1.6	5.3	7.0
Human immunodeficiency virus (HIV) infection, 042-044	2.7	12.6	9.8	27.3	0.2	0.3

SOURCE: U.S. Mortality Rates: Monthly Vital Statistics Report, NCHS, DHHS Pub. No. (PHS)95–1120, Vol. 43, No. 6, Supplement, March 22, 1995, Table 11.

Chart 4.12

Age-Specific Death Rates, Ratio of Indians and Alaska Natives (1991-1993) to U.S. All Races (1992)

The age-specific death rate for American Indians and Alaska Natives (1991-1993) was 1.4 or more times the U.S. All Races rate (1992) for age groups 1 through 54. The Indian rate was less than the U.S. All Races rate for age groups over 74.

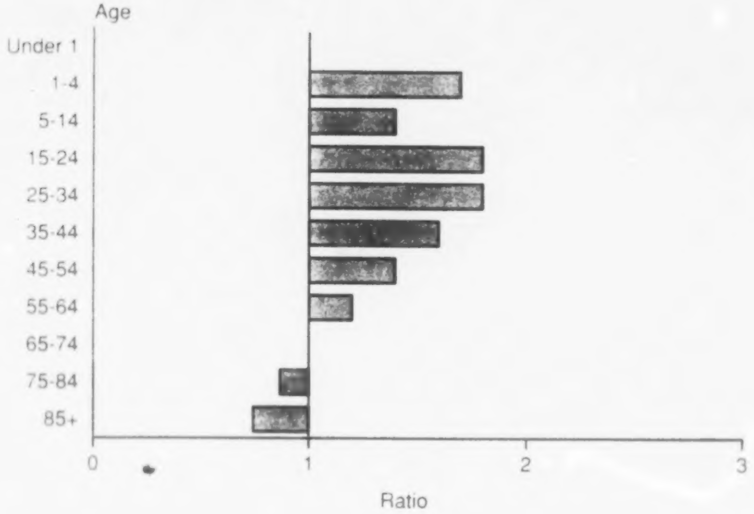


Chart 4.13

Age-Specific Death Rates, Ratio of Indians and Alaska Natives (1991-1993) to U.S. White (1992)

The age-specific death rate for American Indians and Alaska Natives (1991-1993) was about double the U.S. White rate (1992) for age groups 1 to 4 and 15 through 44. The Indian rate was less than the U.S. White rate for age groups over 74.

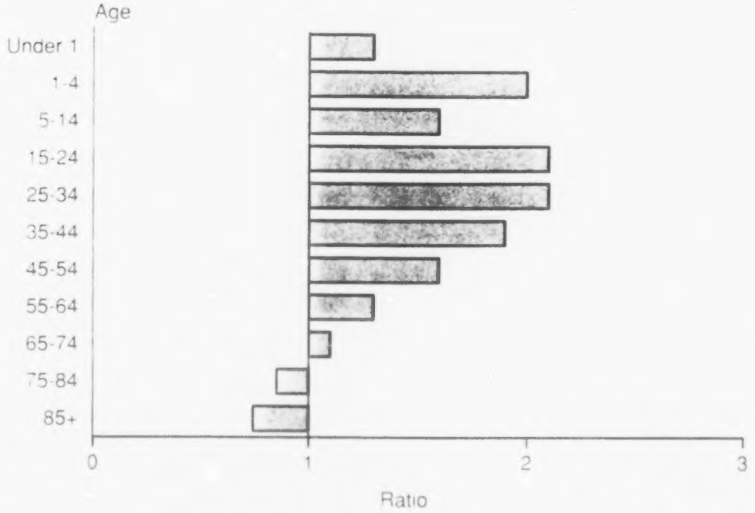


Table 4.12
Age-Specific Mortality Rates

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and Selected U.S. Populations, 1992

Rate per 100,000 Population

Age Group	Indian and Alaska Native		U.S. Rate			Ratio American Indian and Alaska Native to:	
	Number	Rate	All Races	White	Black	U.S. All Races	U.S. White
Under 1	895	890.9	865.7	701.8	1,786.0	1.0	1.3
1–4	271	75.2	43.6	38.1	73.2	1.7	2.0
5–14	267	32.5	22.5	20.6	33.7	1.4	1.6
15–24	1,182	174.9	95.6	83.7	168.4	1.8	2.1
25–34	1,606	249.4	137.8	118.6	279.2	1.8	2.1
35–44	1,796	372.3	228.8	197.3	492.3	1.6	1.9
45–54	1,972	655.7	456.1	412.0	893.7	1.4	1.6
55–64	2,936	1,415.3	1,151.7	1,086.2	1,879.9	1.2	1.3
65–74	3,614	2,677.3	2,588.9	2,519.2	3,601.1	1.0	1.1
75–84	3,451	5,298.7	5,775.9	5,739.6	6,652.0	0.9	0.9
85+	2,227	12,211.4	14,972.9	15,104.2	14,278.6	0.8	0.8

SOURCE: U.S. Data by Race: National Center for Health Statistics, HHS, Monthly Vital Statistics Report, Vol. 43, No. 6, Tables 2 and 8

Chart 4.14
Deaths by Age

Of all American Indian and Alaska Native people who died during 1991-1993, 30 percent were under 45 years of age. This compared to 11 percent for the U.S. All Races population (1992).

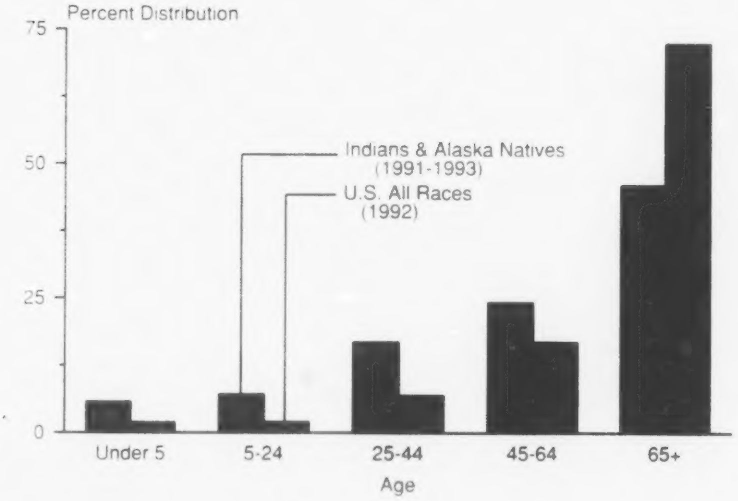


Chart 4.15
Deaths by Age and Race

23 percent of Black decedents and 9 percent of White decedents in 1992 were under 45 years of age.

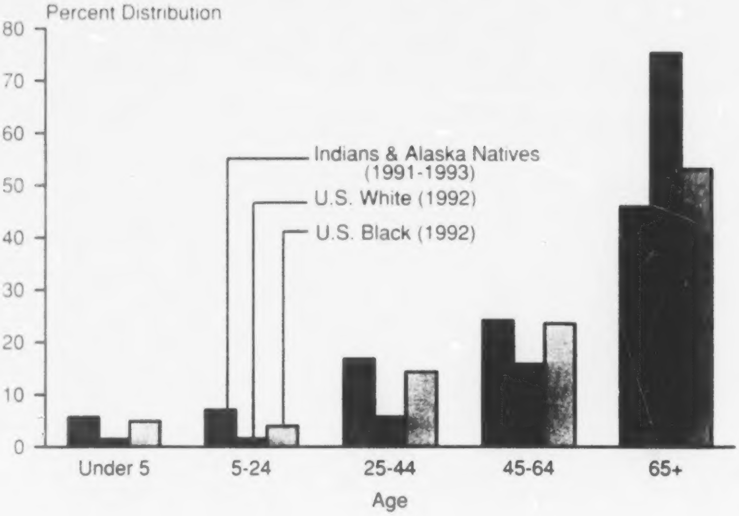


Chart 4.16
Deaths by Age and Sex, Indians and Alaska Natives (1991-1993)

35 percent of Indian male deaths (1991-1993) pertained to ages under 45. This compared with 23 percent for Indian female deaths.

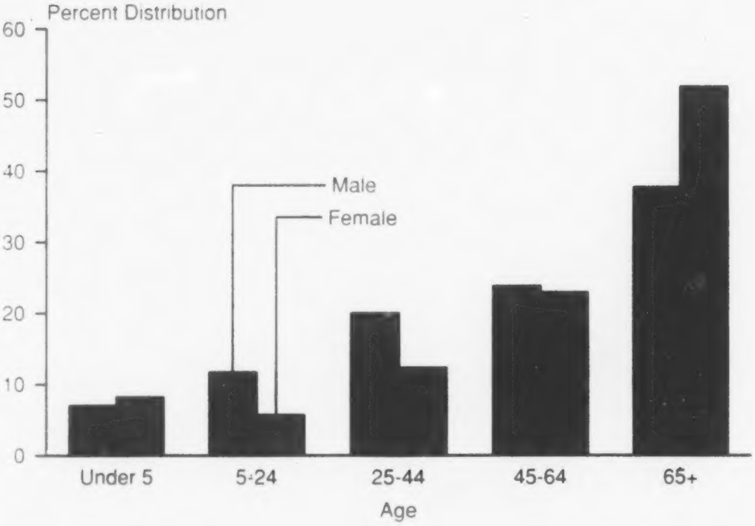


Table 4.14

Number and Percent Distribution of Deaths by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and Selected U.S. Populations, 1992

American Indians and Alaska Natives

	Both Sexes		Male		Female	
Age Group	Number	Percent	Number	Percent	Number	Percent
All Ages	20,229	100.0	11,686	100.0	8,543	100.0
Under 1	895	4.4	484	4.1	411	4.8
1 to 4	271	1.3	154	1.3	117	1.4
5 to 14	267	1.3	178	1.5	89	1.0
15 to 24	1,182	5.8	877	7.5	305	3.6
25 to 34	1,606	7.9	1,172	10.0	434	5.1
35 to 44	1,796	8.9	1,215	10.4	581	6.8
45 to 54	1,972	9.7	1,224	10.5	748	8.8
55 to 64	2,936	14.5	1,706	14.6	1,230	14.4
65 to 74	3,614	17.9	1,955	16.7	1,659	19.4
75 to 84	3,451	17.1	1,756	15.0	1,695	19.8
85 and over	2,227	11.0	956	8.2	1,271	14.9
Age Not Stated	12	0.1	9	0.1	3	0.0

United States

Age Group	All Races	White	Black
Number of Deaths, All Ages	2,175,613	1,873,781	269,219
Percent Distribution, All Ages	100.0	100.0	100.0
Under 1	1.6	1.2	4.2
1 to 4	0.3	0.3	0.7
5 to 14	0.4	0.3	0.7
15 to 24	1.6	1.3	3.3
25 to 34	2.7	2.2	5.7
35 to 44	4.2	3.5	8.6
45 to 54	5.7	5.2	9.3
55 to 64	11.1	10.6	14.3
65 to 74	22.0	22.1	20.9
75 to 84	28.0	29.3	19.7
85 and over	22.4	24.0	12.6
Age Not Stated	0.0	0.0	0.0

NOTE: 0.0 Rounds to zero.

Chart 4.17

Age-Adjusted Injury and Poisoning Deaths

The American Indian and Alaska Native age-adjusted death rate due to injury and poisoning (accidents, suicide, homicide, and other injuries) in 1991-1993 (116.3 deaths per 100,000 population) is less than half of what it was in 1972-1974 (241.7). However, the rate is over twice the U.S. All Races rate of 52.4 for 1992.

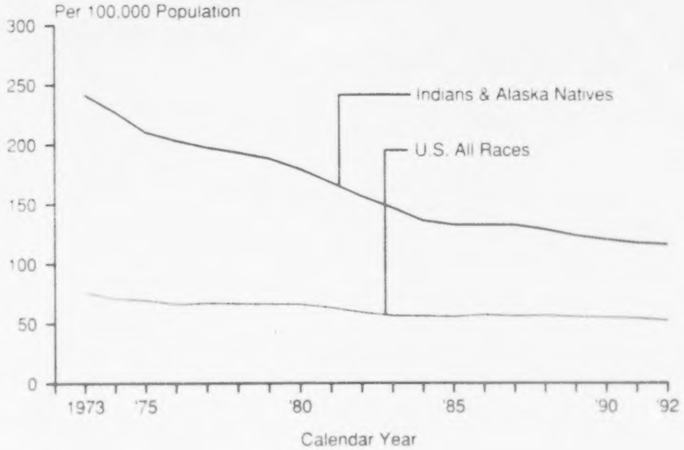


Table 4.17

Deaths and Mortality Rates due to Injury and Poisoning

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White	Ratio Indian to:	
	Number	Rate	Number	Rate	Rate	U.S. All Races	U.S. White
(1993)	1,403						
1991–1993 (1992)	1,369	116.3	146,410	52.4	48.0	2.2	2.4
1990–1992 (1991)	1,397	117.6	149,942	54.5	49.8	2.2	2.4
1989–1991 (1990)	1,349	120.3	150,211	55.1	50.8	2.2	2.4
1988–1990 (1989)	1,367	123.6	150,869	55.6	50.9	2.2	2.4
1987–1989 (1988)	1,391	128.7	152,572	56.7	52.7	2.3	2.4
1986–1988 (1987)	1,390	132.4	149,942	56.2	52.8	2.4	2.5
1985–1987 (1986)	1,375	132.5	151,032	57.4	54.1	2.3	2.4
1984–1986 (1985)	1,275	132.5	145,648	55.8	53.0	2.4	2.5
1983–1985 (1984)	1,254	136.1	145,012	56.3	53.7	2.4	2.5
1982–1984 (1983)	1,280	146.9	144,091	56.6	53.6	2.6	2.7
1981–1983 (1982)	1,351	156.6	147,894	59.2	55.9	2.6	2.8
1980–1982 (1981)	1,344	168.3	155,576	63.2	59.5	2.7	2.8
1979–1981 (1980)	1,418	179.2	160,551	66.1	61.9	2.7	2.9
1978–1980 (1979)	1,472	188.4	158,945	66.4	62.1	2.8	3.0
1977–1979 (1978)	1,383	193.3	157,450	66.7	62.6	2.9	3.1
1976–1978 (1977)	1,346	197.6	156,308	67.3	62.8	2.9	3.1
1975–1977 (1976)	1,321	203.4	151,913	66.2	63.8	3.1	3.2
1974–1976 (1975)	1,283	210.4	156,263	69.5	63.8	3.0	3.3
1973–1975 (1974)	1,229	227.3	156,931	70.8	64.6	3.2	3.5
1972–1974 (1973)	1,381	241.7	166,454	76.1	69.4	3.2	3.5
(1972)	1,241						
1954–1956 (1955)	2,273	200.3	117,650	69.2	51.9	2.9	3.9

Includes the following deaths and ICD-9 codes: Motor vehicle accidents-E810-E825, Other accidents - E800-E807, E826-E949, Suicide - E950-E959, Homicide - E960-E978, Injury undetermined whether accidentally or purposely inflicted - E980-E989, and Injury resulting from operations of war - E990-E999.

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single years specified.

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Chart 4.18

Injury and Poisoning Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific death rate due to injury and poisoning for Indian males (1991-1993) was higher for all age groups in comparison with Indian females. The Indian male rate was over 200 deaths per 100,000 population for all age groups except under 15 and 55 to 64 years.

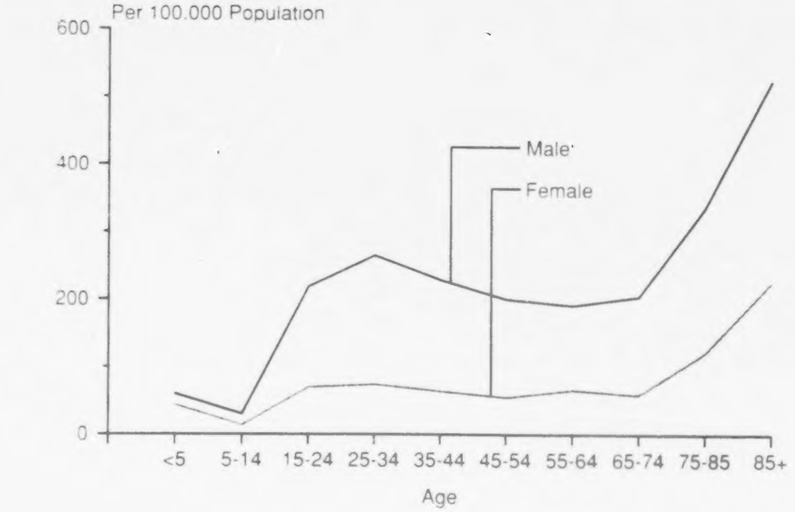

Table 4.18

Injury and Poisoning[1] *Mortality Rates by Age and Sex*

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 5 years	51.9	59.9	43.6
5–14 years	21.8	29.9	13.4
15–24 years	145.5	218.4	69.7
25–34 years	167.1	264.6	73.8
35–44 years	143.5	228.7	63.8
45–54 years	124.4	200.3	54.8
55–64 years	123.9	190.9	65.7
65–74 years	123.0	204.3	58.5
75–84 years	207.2	335.4	120.8
85 years+	334.5	523.3	225.1

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 5 years	21.2	24.5	17.6
5–14 years	12.0	16.2	8.0
15–24 years	74.4	117.0	29.9
25–34 years	66.6	105.7	27.5
35–44 years	58.9	91.8	26.5
45–54 years	50.9	77.2	25.8
55–64 years	51.2	78.1	27.0
65–74 years	65.4	97.8	39.9
75–84 years	124.1	187.7	85.2
85 years+	282.3	416.7	230.2

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 5 years	18.1	21.7	14.2
5–14 years	10.7	14.0	7.2
15–24 years	65.3	99.7	29.0
25–34 years	59.5	93.8	24.5
35–44 years	54.3	83.9	24.7
45–54 years	48.1	71.6	25.2
55–64 years	49.4	74.5	26.4
65–74 years	64.1	95.2	39.4
75–84 years	123.9	187.7	84.7
85 years+	287.2	423.4	235.2

[1] Includes deaths with ICD-9 codes E800.0-E999.9.

NOTE: — Represents zero.

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Chart 4.19
Age-Adjusted Accident Death Rates

The age-adjusted accident death rate for American Indians and Alaska Natives dropped from 188.0 in 1972-1974 to 83.4 in 1991-1993, a decrease of 56 percent. However, the rate is nearly triple the U.S. All Races rate of 29.4 for 1992.

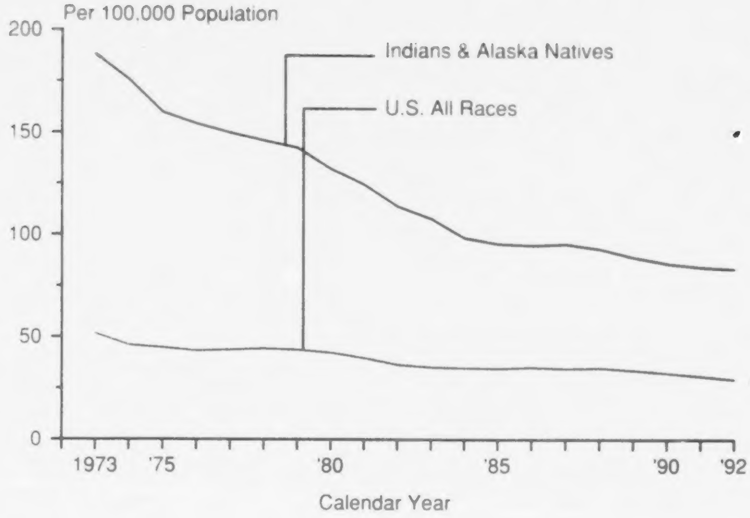

Table 4.19
Accident Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

	Indian and Alaska Native				U.S. All Races			U.S. White		
Calendar Year(s)	Total Deaths	All Accidents	Motor Vehicle	Other	All Accidents	Motor Vehicle	Other	All Accidents	Motor Vehicle	Other
(1993)	1,042									
1991–1993 (1992)	977	83.4	47.0	36.4	29.4	15.8	13.7	28.8	15.9	12.9
1990–1992 (1991)	988	84.3	47.5	36.7	31.0	17.0	13.9	30.3	17.2	13.0
1989–1991 (1990)	970	86.0	48.4	37.6	32.5	18.5	14.0	31.8	18.6	13.0
1988–1990 (1989)	969	89.1	49.6	39.5	33.8	18.9	14.9	32.9	19.1	13.8
1987–1989 (1988)	1,012	93.1	52.2	41.0	35.0	19.7	15.3	34.1	20.0	14.1
1986–1988 (1987)	1,000	95.4	54.3	41.1	34.6	19.5	15.2	33.9	19.8	14.0
1985–1987 (1986)	983	94.8	54.2	40.7	35.2	19.4	15.7	34.5	19.8	14.7
1984–1986 (1985)	912	95.6	53.0	42.7	34.7	18.8	16.0	34.1	19.1	15.0
1983–1985 (1984)	920	98.4	53.2	45.2	35.0	19.1	15.9	34.6	19.6	15.0
1982–1984 (1983)	905	107.8	57.0	50.8	35.3	18.5	16.8	34.7	19.0	15.7
1981–1983 (1982)	999	113.9	62.1	51.9	36.6	19.3	17.3	36.1	19.8	16.3
1980–1982 (1981)	972	124.5	69.4	55.1	39.8	21.8	18.0	39.3	22.5	16.8
1979–1981 (1980)	1,058	132.1	75.2	56.8	42.3	22.9	19.5	41.5	23.4	18.0
1978–1980 (1979)	1,095	142.4	80.4	62.0	43.7	23.7	20.0	42.9	24.3	18.6
1977–1979 (1978)	1,070	145.9	82.4	63.5	44.3	23.4	20.9	43.3	23.8	19.5
1976–1978 (1977)	1,004	149.7	85.0	64.8	43.8	22.4	21.4	42.5	22.5	20.0
1975–1977 (1976)	994	154.1	86.9	67.2	43.2	21.5	21.7	41.8	21.5	20.3
1974–1976 (1975)	999	159.7	87.8	72.0	44.8	21.3	23.5	43.1	21.2	21.9
1973–1975 (1974)	921	175.7	97.3	78.4	46.0	21.8	24.2	44.3	21.7	22.6
1972–1974 (1973)	1,089	188.0	104.8	83.3	51.7	26.4	25.3	49.5	26.0	23.5
(1972)	987									
1954–1956 (1955)	714	184.0	97.6	90.3	54.3	24.6	29.7	52.2	24.3	27.9

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

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Chart 4.20
Accident Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific death rate for accidents for Indian males (1991-1993) was higher for all age groups in comparison with Indian females. The Indian male rate was over 3 times the Indian female rate for age groups 25 through 54 and 65 to 74 years.

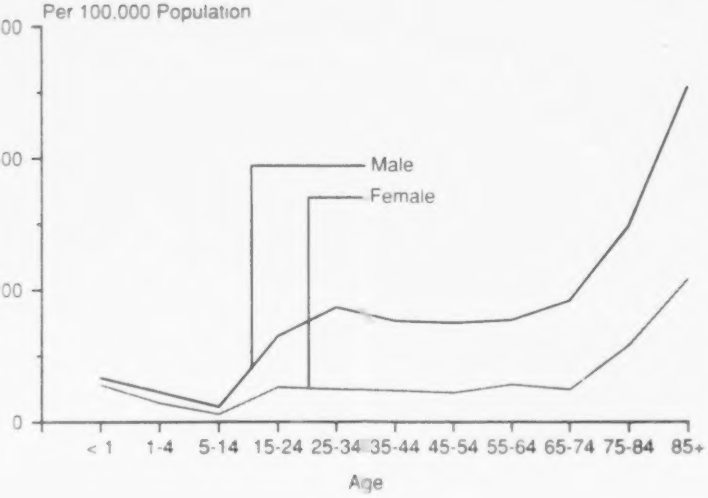

Table 4.20
Accident Mortality Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 1 year	61.7	67.0	56.3
1–4 years	37.2	45.3	28.8
5–14 years	17.1	22.7	11.4
15–24 years	91.9	129.8	52.5
25–34 years	110.4	174.1	49.5
35–44 years	98.5	153.2	47.3
45–54 years	94.8	150.3	44.0
55–64 years	102.2	154.6	56.7
65–74 years	108.9	184.2	49.2
75–84 years	188.8	297.3	115.7
85 years+	323.5	508.4	216.5

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 1 year	20.5	22.7	18.2
1–4 years	15.9	19.1	12.6
5–14 years	9.3	12.2	6.2
15–24 years	37.8	55.5	19.3
25–34 years	32.5	50.6	14.4
35–44 years	30.1	46.7	13.8
45–54 years	27.3	41.0	14.2
55–64 years	30.6	44.8	17.8
65–74 years	44.2	61.1	31.0
75–84 years	96.3	130.8	75.3
85 years+	254.8	344.3	220.2

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 1 year	16.9	19.8	13.8
1–4 years	14.6	18.0	11.0
5–14 years	8.6	11.2	5.8
15–24 years	39.4	57.3	20.5
25–34 years	32.3	50.3	14.0
35–44 years	28.6	44.3	12.9
45–54 years	25.5	37.8	13.6
55–64 years	28.5	41.0	16.9
65–74 years	42.9	58.4	30.5
75–84 years	95.6	129.2	74.9
85 years+	259.3	348.7	225.2

[1] Includes deaths with ICD-9 codes E800-E949.

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Chart 4.21
Age-Adjusted Suicide Death Rates

The age-adjusted suicide death rate for American Indians and Alaska Natives has decreased 23 percent since 1972-1974. The Indian rate for 1991-1993 was 16.2 deaths per 100,000 population compared with the U.S. All Races rate of 11.1 for 1992, a ratio of 1.5 to 1.

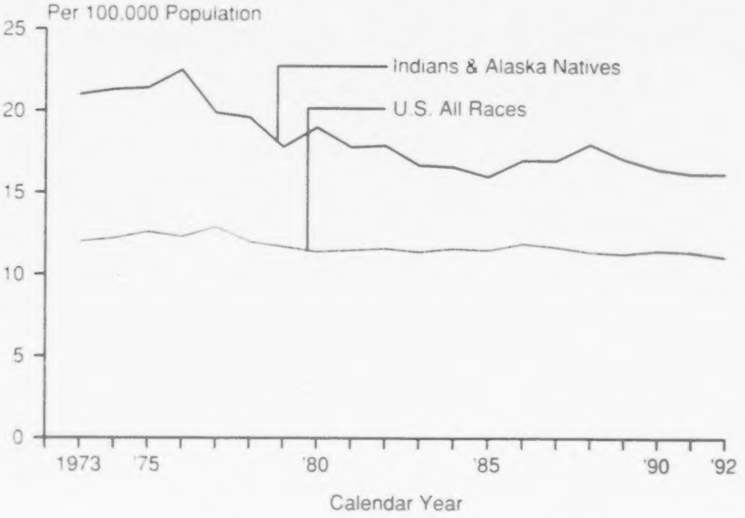

Table 4.21
Suicide Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	204						
1991–1993 (1992)	193	16.2	30,484	11.1	11.8	1.5	1.4
1990–1992 (1991)	184	16.2	30,810	11.4	12.1	1.4	1.3
1989–1991 (1990)	195	16.5	30,906	11.5	12.2	1.4	1.4
1988–1990 (1989)	192	17.1	30,232	11.3	12.0	1.5	1.4
1987–1989 (1988)	185	17.5	30,407	11.4	12.2	1.5	1.4
1986–1988 (1987)	187	17.0	30,796	11.7	12.5	1.5	1.4
1985–1987 (1986)	158	17.0	30,904	11.9	12.7	1.4	1.3
1984–1986 (1985)	172	16.0	29,453	11.5	12.3	1.4	1.3
1983–1985 (1984)	148	16.6	29,286	11.6	12.4	1.4	1.3
1982–1984 (1983)	161	16.7	28,295	11.4	12.2	1.5	1.4
1981–1983 (1982)	154	17.9	28,242	11.6	12.4	1.5	1.4
1980–1982 (1981)	157	17.8	27,596	11.5	12.2	1.5	1.5
1979–1981 (1980)	146	19.0	26,869	11.4	12.1	1.7	1.6
1978–1980 (1979)	162	17.8	27,204	11.7	12.4	1.5	1.4
1977–1979 (1978)	117	19.6	27,294	12.0	12.7	1.6	1.5
1976–1978 (1977)	161	19.9	28,681	12.9	13.6	1.5	1.5
1975–1977 (1976)	143	22.5	26,832	12.3	12.9	1.8	1.7
1974–1976 (1975)	139	21.4	27,063	12.6	13.3	1.7	1.6
1973–1975 (1974)	122	21.3	25,683	12.2	12.8	1.7	1.7
1972–1974 (1973)	116	21.0	25,118	12.0	12.6	1.8	1.7
(1972)	113		25,004				
1954–1956 (1955)	39	11.9	16,760	9.9	10.4	1.2	1.1

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

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Chart 4.22
Suicide Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific suicide death rate (1991-1993) for Indian males was higher for all age groups in comparison with Indian females. The Indian male rate was at its highest (51.7 deaths per 100,000 population) for age group 15 to 24.

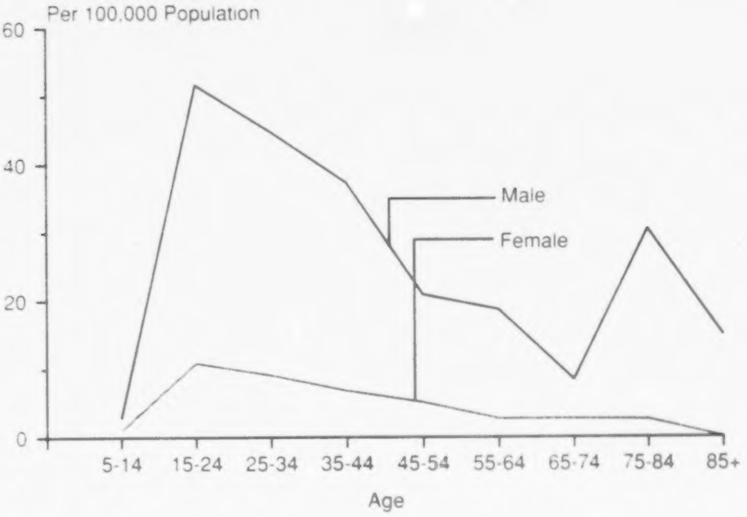

Table 4.22
Suicide [1] Mortality Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	1.9	2.9	1.0
15–24 years	31.7	51.7	10.9
25–34 years	26.6	44.8	9.1
35–44 years	21.6	37.3	6.8
45–54 years	12.6	20.9	5.1
55–64 years	10.1	18.7	2.7
65–74 years	5.2	8.4	2.7
75–84 years	13.8	30.5	2.6
85 years+	5.5	15.0	0.0

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	0.9	1.2	0.5
15–24 years	13.0	21.9	3.7
25–34 years	14.5	24.0	5.0
35–44 years	15.1	23.7	6.6
45–54 years	14.7	22.4	7.3
55–64 years	14.8	24.1	6.5
65–74 years	16.5	29.9	5.9
75–84 years	22.8	50.0	6.2
85 years+	21.9	62.8	6.1

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	0.9	1.3	0.5
15–24 years	13.5	22.7	3.8
25–34 years	15.3	25.1	5.4
35–44 years	16.2	25.2	7.2
45–54 years	15.8	24.0	7.9
55–64 years	16.2	26.0	7.2
65–74 years	17.7	32.0	6.3
75–84 years	24.2	53.0	6.6
85 years+	23.2	67.6	6.3

[1] Includes deaths with ICD-9 codes E950–E959.
NOTE: — Represents zero. 0.0 Rounds to zero.

Chart 4.23
Age-Adjusted Homicide Death Rates

The age-adjusted homicide death rate for American Indians and Alaska Natives has decreased 40 percent since 1972-1974. In 1991-1993, the Indian rate was 14.6 deaths per 100,000 population compared with 10.5 for the U.S. All Races population in 1992, a ratio of 1.4 to 1.

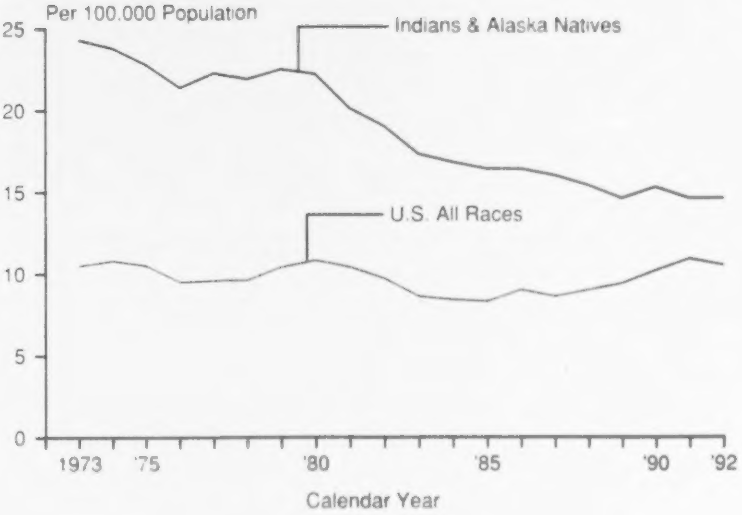

Table 4.23
Homicide Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	168						
1991–1993 (1992)	168	14.6	25,488	10.5	6.1	1.4	2.4
1990–1992 (1991)	199	14.6	26,513	10.9	6.2	1.3	2.4
1989–1991 (1990)	153	15.3	24,932	10.2	5.9	1.5	2.6
1988–1990 (1989)	177	14.6	22,909	9.4	5.4	1.6	2.7
1987–1989 (1988)	160	15.4	22,032	9.0	5.3	1.7	2.9
1986–1988 (1987)	161	16.0	21,103	8.6	5.3	1.9	3.0
1985–1987 (1986)	184	16.4	21,731	9.0	5.6	1.8	2.9
1984–1986 (1985)	151	16.4	19,893	8.3	5.4	2.0	3.0
1983–1985 (1984)	146	16.8	19,796	8.4	5.5	2.0	3.1
1982–1984 (1983)	171	17.3	20,191	8.6	5.6	2.0	3.1
1981–1983 (1982)	145	19.0	22,358	9.7	6.3	2.0	3.0
1980–1982 (1981)	165	20.1	23,646	10.4	6.6	1.9	3.0
1979–1981 (1980)	172	22.2	24,278	10.8	6.9	2.1	3.2
1978–1980 (1979)	164	22.5	22,550	10.4	6.5	2.2	3.5
1977–1979 (1978)	158	21.9	20,432	9.6	6.0	2.3	3.7
1976–1978 (1977)	139	22.3	19,968	9.6	5.9	2.3	3.8
1975–1977 (1976)	144	21.4	19,554	9.5	5.5	2.3	3.9
1974–1976 (1975)	115	22.8	21,310	10.5	6.1	2.2	3.7
1973–1975 (1974)	136	23.8	21,465	10.8	6.0	2.2	4.0
1972–1974 (1973)	139	24.3	20,465	10.5	5.7	2.3	4.3
(1972)	93		19,638				
1954–1956 (1955)	77	23.8	7,418	4.8	2.4	5.0	9.9

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

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Chart 4.24

Homicide Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific homicide death rate (1991-1993) for Indian males was higher for all ages groups except under 1 and 85 years and older in comparison with Indian females. The Indian male rate exceeded 32.0 deaths per 100,000 population for age groups 15 through 44.

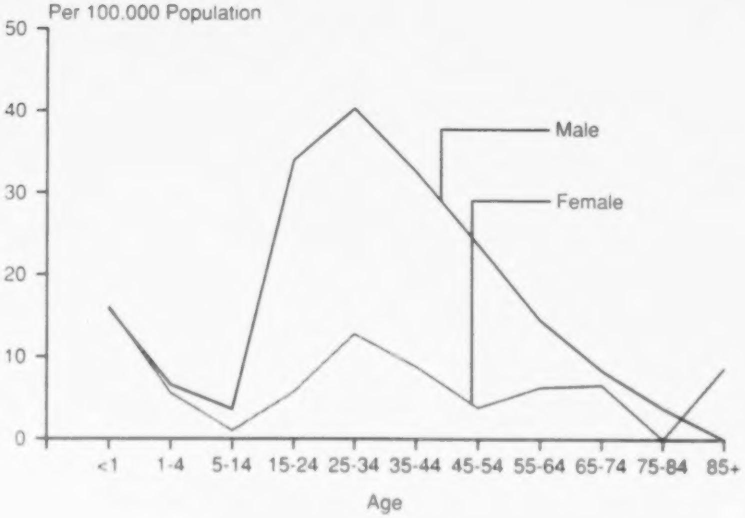

Table 4.24

Homicide [1] Mortality Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Age Group	Indian and Alaska Native Both Sexes	Male	Female
Under 1 year	15.9	15.8	16.1
1–4 years	6.1	6.6	5.6
5–14 years	2.3	3.6	1.0
15–24 years	20.1	34.0	5.7
25–34 years	26.2	40.3	12.8
35–44 years	20.3	32.6	8.8
45–54 years	13.3	23.7	3.8
55–64 years	10.1	14.5	6.3
65–74 years	7.4	8.4	6.6
75–84 years	1.5	3.8	0.0
85 years+	5.5	0.0	8.7

Age Group	U.S. All Races Both Sexes	Male	Female
Under 1 year	8.1	8.9	7.4
1–4 years	2.8	3.0	2.5
5–14 years	1.6	2.0	1.2
15–24 years	22.2	37.3	6.4
25–34 years	17.3	27.5	7.1
35–44 years	11.2	17.6	4.9
45–54 years	7.5	11.8	3.3
55–64 years	4.7	7.7	2.0
65–74 years	3.7	5.5	2.4
75–84 years	3.8	5.3	2.9
85 years+	4.1	7.3	2.9

Age Group	U.S. White Both Sexes	Male	Female
Under 1 year	6.0	6.4	5.5
1–4 years	1.8	2.1	1.5
5–14 years	1.0	1.2	0.8
15–24 years	10.9	17.5	4.1
25–34 years	9.7	15.1	4.2
35–44 years	7.2	10.9	3.4
45–54 years	5.4	8.1	2.7
55–64 years	3.6	5.9	1.6
65–74 years	2.7	3.6	1.9
75–84 years	3.0	4.0	2.3
85 years+	3.3	5.1	2.6

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[1] Includes deaths with ICD-9 codes E960–E978.

NOTE: — Represents zero. 0.0 Rounds to zero.

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Chart 4.25
Other Injury Deaths and Mortality Rates

The age-adjusted death rate due to other injuries (undetermined injury and war injury) has decreased 73 percent since 1972-1974. In 1991-1993, the Indian rate was 2.2 deaths per 100,000 population which was double the rate for the U.S. All Races population in 1992 (1.1).

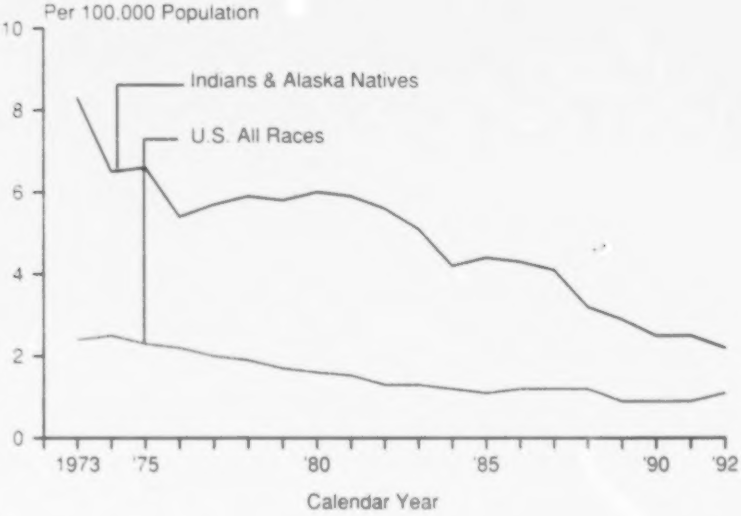

Table 4.25
Deaths and Mortality Rates due to Other Injuries [1,2]

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1972-1993

Age-Adjusted Rate per 100,000 Population

	Indian and Alaska Native		U.S. All Races				Ratio Indian to:	
	Number of Deaths		Number of Deaths					
Calendar Year(s)	Undetermined Injury and War Injury	Combined Rate	Undetermined Injury	War Injury	Combined Rate	U.S. White Combined Rate	U.S. All Races	U.S. White
(1993)	24							
1991–1993 (1992)	31	2.2	2,904	11	1.1	1.0	2.0	2.2
1990–1992 (1991)	26	2.5	2,517	10	0.9	0.8	2.8	3.1
1989–1991 (1990)	31	2.5	2,376	14	0.9	0.8	2.8	3.1
1988–1990 (1989)	28	2.9	2,686	14	0.9	0.8	3.2	3.6
1987–1989 (1988)	34	3.2	3,018	15	1.2	1.0	2.7	3.2
1986–1988 (1987)	41	4.1	3,011	12	1.2	1.0	3.4	4.1
1985–1987 (1986)	50	4.3	3,108	12	1.2	1.1	3.6	3.9
1984–1986 (1985)	39	4.4	2,826	19	1.1	1.0	4.0	4.4
1983–1985 (1984)	39	4.2	2,996	23	1.2	1.1	3.5	3.8
1982–1984 (1983)	40	5.1	3,104	13	1.3	1.1	3.9	4.6
1981–1983 (1982)	52	5.6	3,201	11	1.3	1.2	4.3	4.7
1980–1982 (1981)	46	5.9	3,614	16	1.5	1.3	3.9	4.5
1979–1981 (1980)	39	6.0	3,663	23	1.6	1.4	3.8	4.3
1978–1980 (1979)	49	5.8	3,860	17	1.7	1.5	2.4	2.7
1977–1979 (1978)	37	5.9	4,144	19	1.9	1.6	3.1	3.7
1976–1978 (1977)	38	5.7	4,433	24	2.0	1.6	2.9	3.6
1975–1977 (1976)	39	5.4	4,744	22	2.2	1.8	2.5	2.2
1974–1976 (1975)	29	6.6	4,838	22	2.3	1.9	2.9	3.5
1973–1975 (1974)	50	6.5	5,149	12	2.5	2.1	2.6	3.1
1972–1974 (1973)	[3] 35	8.3	5,030	20	2.4	2.0	3.5	4.2
(1972)	46							

NOTE: Data were first available for these cause of death categories in 1969, through use of the ICD-8 coding system. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

[1] Includes deaths with ICD-9 codes E980-E989; Injury undetermined whether accidentally or purposely inflicted.

[2] Includes deaths with ICD-9 codes E990-E999; Injury resulting from operations of war.

[3] In 1973 there was one American Indian injury death resulting from operations of war. For each of the other years shown above there were no American Indian injury deaths due to this cause.

Chart 4.26

Other Injury Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific death rate due to other injuries (1991-1993) for Indian males was higher for all ages groups through age 84 in comparison with Indian females (for 85 years and older the rates were both 0.0). The highest age and sex-specific rates occurred for males in age groups 25 through 54 years, 5.4 to 5.6 deaths per 100,000 population.

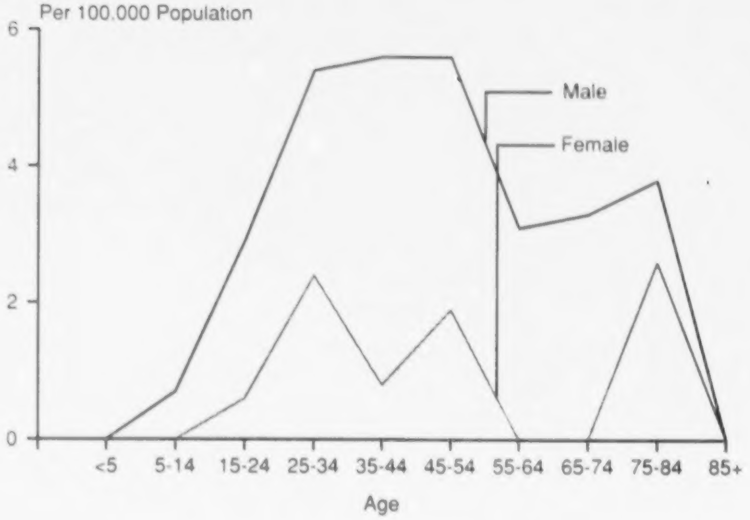

Table 4.26

Other Injury [1] Mortality Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

Age Group	Indian and Alaska Native		
	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	0.4	0.7	0.0
15–24 years	1.8	2.9	0.6
25–34 years	3.9	5.4	2.4
35–44 years	3.1	5.6	0.8
45–54 years	3.7	5.6	1.9
55–64 years	1.4	3.1	0.0
65–74 years	1.5	3.3	0.0
75–84 years	3.1	3.8	2.6
85 years+	0.0	0.0	0.0

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 5 years	0.4	0.4	0.3
5–14 years	0.1	0.2	0.1
15–24 years	0.9	1.5	0.3
25–34 years	1.8	2.7	0.9
35–44 years	2.3	3.5	1.1
45–54 years	1.2	1.6	0.8
55–64 years	0.8	1.1	0.5
65–74 years	0.7	1.0	0.5
75–84 years	0.9	1.3	0.6
85 years+	1.2	1.9	0.9

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 5 years	0.3	0.3	0.2
5–14 years	0.1	0.2	0.0
15–24 years	0.9	1.4	0.3
25–34 years	1.7	2.6	0.8
35–44 years	2.1	3.1	1.1
45–54 years	1.1	1.4	0.8
55–64 years	0.8	1.0	0.6
65–74 years	0.7	0.9	0.4
75–84 years	0.8	1.2	0.6
85 years+	1.1	1.5	0.9

[1] Includes deaths with ICD-9 codes E980.0–E999.9

NOTE: — Represents zero. 0.0 Rounds to zero.

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Chart 4.27
Firearm Injury Deaths and Mortality Rates

The age-adjusted firearm injury death rate for American Indians and Alaska Natives has decreased 33 percent since 1978-1980. In 1991-1993, the Indian rate was 16.9 deaths per 100,000 population compared with 14.9 for the U.S. All Races population in 1992, 13 percent higher.

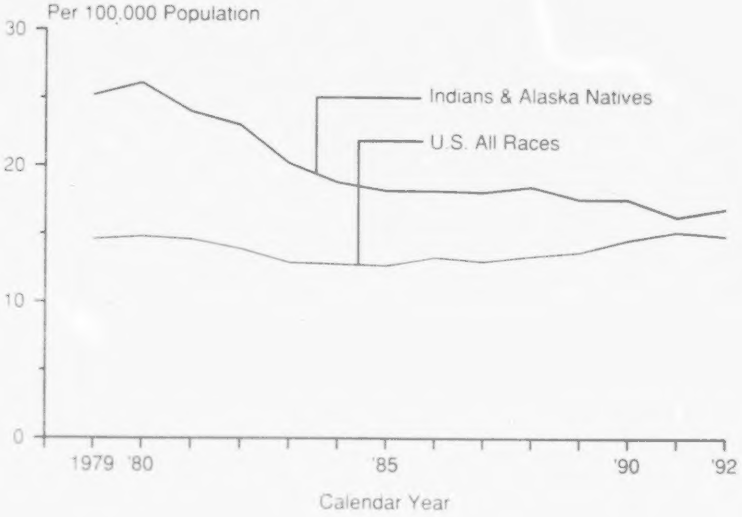

Table 4.27
Deaths and Mortality Rates due to Injury by Firearms [1]

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1979-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White	Ratio Indian to:	
	Number	Rate	Number	Rate	Rate	U.S. All Races	U.S. White
(1993)	204						
1991–1993 (1992)	181	16.9	37,776	14.9	11.8	1.1	1.4
1990–1992 (1991)	221	16.3	38,317	15.2	12.0	1.1	1.4
1989–1991 (1990)	172	17.6	37,155	14.6	11.9	1.2	1.5
1988–1990 (1989)	215	17.6	34,776	13.7	11.4	1.3	1.5
1987–1989 (1988)	205	18.5	33,989	13.4	11.3	1.4	1.6
1986–1988 (1987)	182	18.1	32,895	13.0	11.3	1.4	1.6
1985–1987 (1986)	186	18.2	33,373	13.3	11.7	1.4	1.6
1984–1986 (1985)	186	18.2	31,566	12.7	11.4	1.4	1.6
1983–1985 (1984)	169	18.8	31,331	12.8	11.6	1.5	1.6
1982–1984 (1983)	185	20.2	31,099	12.9	11.5	1.6	1.8
1981–1983 (1982)	210	23.0	32,957	13.9	12.2	1.7	1.9
1980–1982 (1981)	210	24.0	34,050	14.6	12.5	1.6	1.9
1979–1981 (1980)	195	26.1	33,780	14.8	12.4	1.8	2.1
1978–1980 (1979)	229	25.2	33,019	14.6	12.2	1.7	2.1
(1978)	176						

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[1] Includes deaths with ICD-9 codes: Accidents caused by firearm missile - E922, Suicide and self-inflicted injury by firearms - E955.0-E955.4, Assault by firearms and legal intervention - E965.0-E965.4, E970, and Injury by firearms, undetermined whether accidentally or purposely inflicted - E985.0-E985.4. Injury by firearm causes exclude explosive and other causes indirectly related to firearms. Includes ICD-8 codes: E922, E955, E965, E970, and E985 (1978 only).

SOURCE: U.S. All Races and White Mortality Data: Advance Report on Final Mortality Statistics, 1992, NCHS, DHHS, Report Vol. 43, No. 6(S), March 22, 1995, Table 19. Data not published for the U.S. populations prior to 1979.

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Chart 4.28
Firearm Injury Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific firearm injury death rate (1991-1993) for Indian males was considerably higher for all age groups in comparison with Indian females. The Indian male rate peaked at 58.4 deaths per 100,000 population for the 15 to 24 year age group. This was also the age group in the 1992 U.S. All Races male population that had the highest rate (51.0). However for the U.S. White population, the highest rate occurred for the male group 85 years and over (49.9).

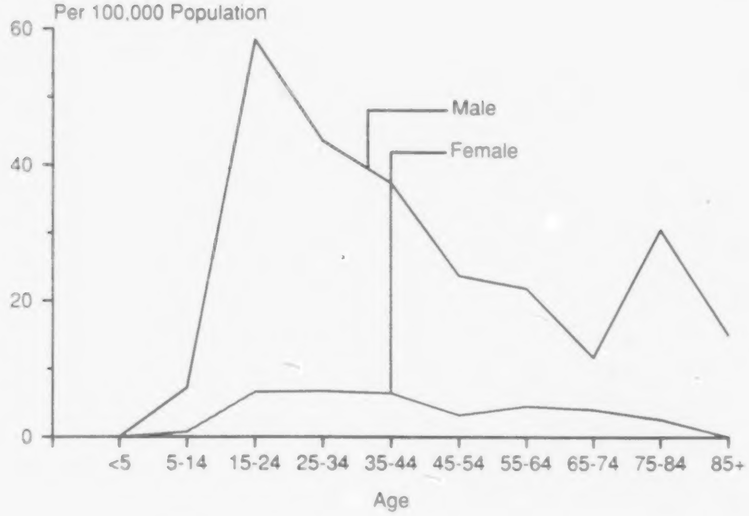

Table 4.28
Firearm Injury[1] *Mortality Rates by Age and Sex*

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	4.0	7.2	0.7
15–24 years	33.0	58.4	6.6
25–34 years	24.7	43.5	6.7
35–44 years	21.4	37.3	6.4
45–54 years	13.0	23.7	3.2
55–64 years	12.5	21.8	4.5
65–74 years	7.4	11.7	4.0
75–84 years	13.8	30.5	2.6
85 years+	5.5	15.0	0.0

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 5 years	0.6	0.7	0.5
5–14 years	2.1	3.2	1.0
15–24 years	29.1	51.0	6.2
25–34 years	21.4	36.6	6.3
35–44 years	15.7	26.2	5.3
45–54 years	13.3	22.4	4.6
55–64 years	12.5	22.4	3.7
65–74 years	13.6	26.5	3.4
75–84 years	17.2	40.6	2.9
85 years+	14.4	47.3	1.6

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 5 years	0.4	0.4	0.3
5–14 years	1.7	2.5	0.8
15–24 years	19.0	32.5	4.7
25–34 years	16.1	27.1	4.9
35–44 years	13.8	22.6	4.9
45–54 years	12.8	21.2	4.7
55–64 years	12.9	22.7	3.8
65–74 years	14.1	27.5	3.5
75–84 years	18.1	42.8	2.9
85 years+	14.9	49.9	1.6

[1] Includes deaths with ICD-9 codes: Accident caused by firearm missile - E922. Suicide and self-inflicted injury by firearms - E955.0-E955.4. Assault by firearms and legal intervention - E965.0-E965.4. E970, and Injury by firearms, undetermined whether accidentally or purposely inflicted - E985.0-E985.4. Injury by firearm causes exclude explosive and other causes indirectly related to firearms.

NOTE: — Represents zero. 0.0 Rounds to zero.

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Chart 4.29
Age-Adjusted Alcoholism Death Rates

The age-adjusted alcoholism death rate for American Indians and Alaska Natives has decreased 35 percent since 1979-1981. In 1991-1993, it was 38.4 deaths per 100,000 population or 5.6 times the U.S. All Races rate of 6.8 in 1992.

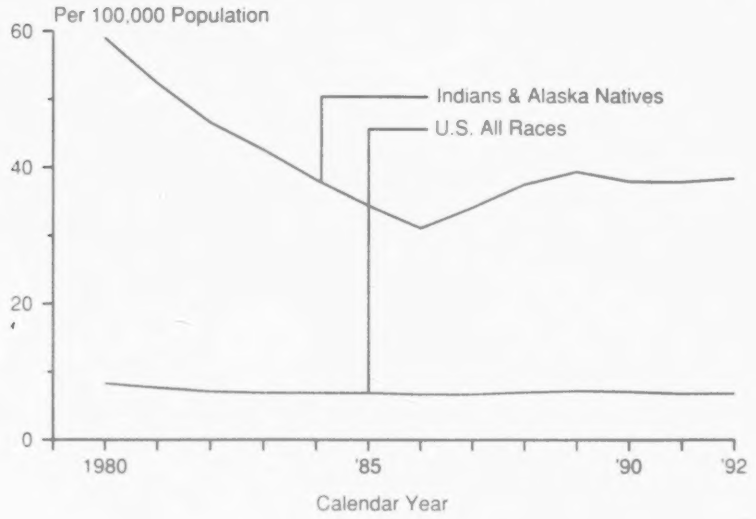

Table 4.29
Alcoholism Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1979-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native Number	Indian and Alaska Native Rate	U.S. All Races Number	U.S. All Races Rate	U.S. White Rate	Ratio American Indian to: U.S. All Races	Ratio American Indian to: U.S. White
(1993)	395						
1991–1993 (1992)	402	38.4	19,438	6.8	6.0	5.6	6.3
1990–1992 (1991)	367	37.9	19,091	6.8	6.0	5.5	6.2
1989–1991 (1990)	350	38.0	19,592	7.1	6.1	5.3	6.2
1988–1990 (1989)	376	39.4	19,619	7.2	6.1	5.4	6.4
1987–1989 (1988)	375	37.5	18,715	7.0	5.9	5.3	6.3
1986–1988 (1987)	264	34.1	17,656	6.7	5.7	5.0	5.9
1985–1987 (1986)	264	31.1	17,283	6.7	5.6	4.6	5.5
1984–1986 (1985)	274	34.4	17,609	6.9	5.8	4.9	5.9
1983–1985 (1984)	302	38.5	17,452	6.9	5.9	5.5	6.5
1982–1984 (1983)	295	42.6	17,237	6.9	5.9	6.1	7.1
1981–1983 (1982)	293	46.6	17,334	7.1	6.1	6.5	7.5
1980–1982 (1981)	344	52.4	18,469	7.7	6.5	6.8	8.0
1979–1981 (1980)	369	59.0	19,560	8.3	6.9	7.1	8.6
(1979)	377						

NOTE: For all years presented above, the causes of death that define alcoholism deaths have been expanded to include alcoholic polyneuropathy—357.5 and accidental poisoning by alcohol—E860. For a complete description of the causes of death that define deaths due to alcoholism, refer to the Glossary of ICD-9 Codes. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

Chart 4.30

Alcoholism Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

Other than for age groups under 15 years where the rates for both sexes were 0.0, the age-specific alcoholism death rate (1991-1993) for Indian males was higher for all age groups in comparison with Indian females. The Indian male rate exceeded 136.0 deaths per 100,000 population for age groups 45 through 64.

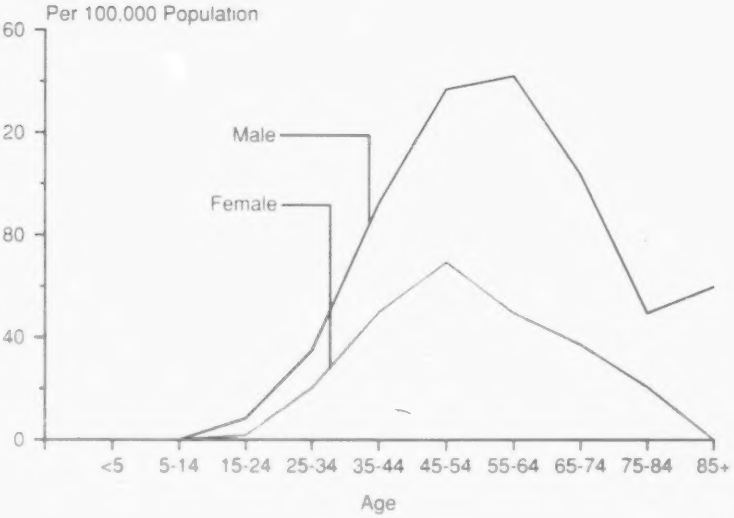

Table 4.30

Alcoholism [1] Mortality Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	0.0	0.0	0.0
15–24 years	5.2	8.4	1.8
25–34 years	27.5	34.9	20.3
35–44 years	70.3	92.2	49.7
45–54 years	101.7	137.0	69.4
55–64 years	92.6	142.2	49.5
65–74 years	66.7	103.8	37.2
75–84 years	32.2	49.5	20.6
85 years+	21.9	59.8	0.0

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 5 years	0.0	0.0	—
5–14 years	—	—	—
15–24 years	0.3	0.4	0.1
25–34 years	2.5	3.5	1.4
35–44 years	10.2	16.0	4.6
45–54 years	16.6	26.3	7.3
55–64 years	22.9	37.1	10.1
65–74 years	19.2	32.8	8.5
75–84 years	10.8	20.9	4.6
85 years+	5.4	12.5	2.6

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 5 years	0.0	0.0	—
5–14 years	—	—	—
15–24 years	0.3	0.4	0.1
25–34 years	2.2	3.2	1.1
35–44 years	8.8	14.1	3.6
45–54 years	14.2	22.5	6.1
55–64 years	20.8	33.7	9.0
65–74 years	17.9	30.5	7.9
75–84 years	10.4	20.2	4.4
85 years+	5.0	11.9	2.4

[1] Includes deaths with ICD-9 codes 291, 303, 305.0, 357.5, 425.5, 535.3, 571.0-571.3, 790.3 and E860.

NOTE: — Represents zero. 0.0 Rounds to zero.

Chart 4.31
Age-Adjusted Malignant Neoplasm Death Rates

The age-adjusted malignant neoplasm death rate for American Indians and Alaska Natives hit a low in 1977-1979 of 80.2 deaths per 100,000 population, but has generally increased since then. In 1991-1993, the Indian rate was 74 percent of the U.S. All Races rate (1992), 98.8 compared with 133.1. In 1977-1979, the Indian rate was only 60 percent of the 1978 U.S. All Races rate (133.8).

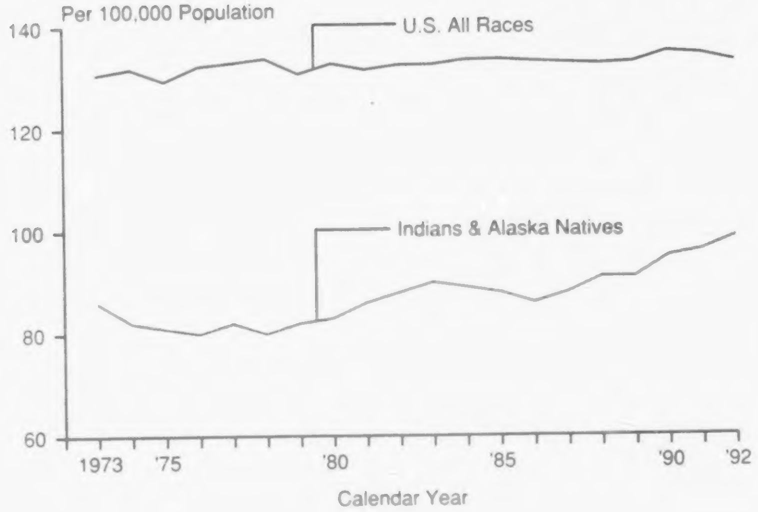

Table 4.31
Malignant Neoplasm Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	1,024						
1991–1993 (1992)	1,026	98.8	520,578	133.1	129.9	0.7	0.8
1990–1992 (1991)	1,021	96.2	514,657	134.5	131.3	0.7	0.7
1989–1991 (1990)	859	94.6	505,322	135.0	131.5	0.7	0.7
1988–1990 (1989)	913	91.1	496,152	133.0	130.2	0.7	0.7
1987–1989 (1988)	831	90.9	485,048	132.7	130.0	0.7	0.7
1986–1988 (1987)	768	87.6	476,927	132.9	130.1	0.7	0.7
1985–1987 (1986)	756	85.8	469,376	133.2	130.4	0.6	0.7
1984–1986 (1985)	714	88.1	461,563	133.6	130.7	0.7	0.7
1983–1985 (1984)	712	88.8	453,492	133.5	130.2	0.7	0.7
1982–1984 (1983)	662	89.6	442,986	132.6	129.4	0.7	0.7
1981–1983 (1982)	617	87.5	433,795	132.5	129.4	0.7	0.7
1980–1982 (1981)	578	86.3	422,094	131.6	128.5	0.7	0.7
1979–1981 (1980)	567	82.7	416,509	132.8	129.6	0.6	0.6
1978–1980 (1979)	480	81.7	403,395	130.8	130.2	0.6	0.6
1977–1979 (1978)	503	80.2	396,992	133.8	130.8	0.6	0.6
1976–1978 (1977)	456	82.4	386,686	133.0	130.0	0.6	0.6
1975–1977 (1976)	441	80.3	377,312	132.3	129.5	0.6	0.6
1974–1976 (1975)	395	81.4	365,693	129.4	128.1	0.6	0.6
1973–1975 (1974)	403	82.2	360,482	131.8	129.0	0.6	0.6
1972–1974 (1973)	385	85.6	351,055	130.7	127.7	0.7	0.7
(1972)	354		345,618				
1954–1956 (1955)	296	95.0	240,681	125.8	125.8	0.8	0.8

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

Chart 4.32

Malignant Neoplasm Death Rates by Age and Sex, Indians and Alaska Natives (1991-1993)

The age-specific malignant neoplasm death rate (1991-1993) for Indian males was greater for age groups 5 through 34 and 55 and over, in comparison with Indian females. The rates for Indian males increased with age beginning with age 1 and for Indian females beginning with age 5.

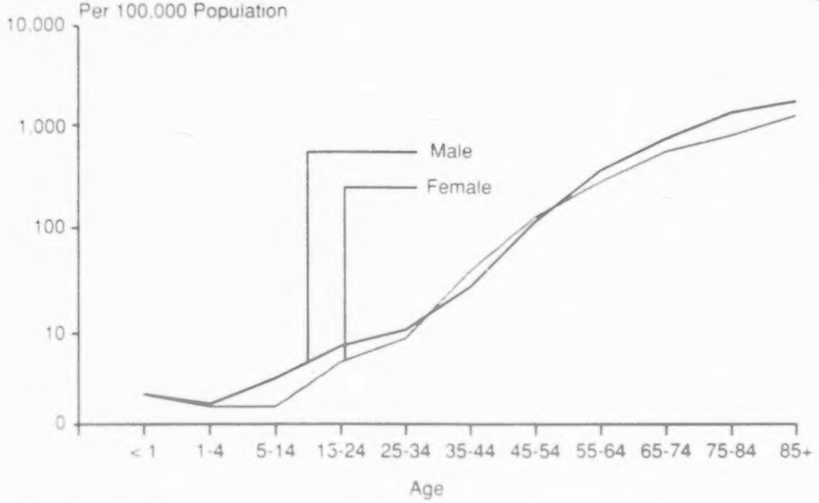

Table 4.32

Malignant Neoplasm[1] *Mortality Rates by Age and Sex*

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 1 year	2.0	2.0	2.0
1–4 years	1.9	1.6	2.3
5–14 years	2.2	2.9	1.5
15–24 years	5.2	6.1	4.2
25–34 years	8.1	8.9	7.3
35–44 years	29.6	24.0	34.9
45–54 years	115.7	109.2	121.7
55–64 years	314.3	359.0	275.5
65–74 years	645.2	753.6	559.3
75–84 years	1,037.7	1,375.9	809.7
85 years+	1,464.1	1,779.3	1,281.5

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 1 year	2.4	2.5	2.2
1–4 years	3.1	3.1	3.0
5–14 years	3.0	3.4	2.6
15–24 years	5.0	5.9	4.1
25–34 years	12.5	12.1	12.9
35–44 years	42.3	38.1	46.5
45–54 years	150.3	153.8	147.0
55–64 years	437.8	513.4	369.7
65–74 years	873.4	1,111.1	686.5
75–84 years	1,350.9	1,882.8	1,025.6
85 years+	1,787.3	2,802.7	1,394.1

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 1 year	2.6	2.7	2.4
1–4 years	3.2	3.3	3.0
5–14 years	3.1	3.5	2.7
15–24 years	5.0	6.0	4.1
25–34 years	12.1	11.9	12.2
35–44 years	39.7	35.6	43.9
45–54 years	142.4	142.8	142.1
55–64 years	424.7	490.8	364.0
65–74 years	860.8	1,082.7	684.5
75–84 years	1,342.7	1,854.3	1,029.0
85 years+	1,775.5	2,783.6	1,390.9

[1] Includes deaths with ICD-9 codes 140–208.

Chart 4.33
Age-Adjusted Tuberculosis Death Rates

The age-adjusted tuberculosis death rate for American Indians and Alaska Natives has dropped from 10.5 deaths per 100,000 population in 1972-1974 to 2.1 in 1991-1993, a decrease of 80 percent. The Indian rate is still 5.3 times the U.S. All Races rate of 0.4 for 1992.

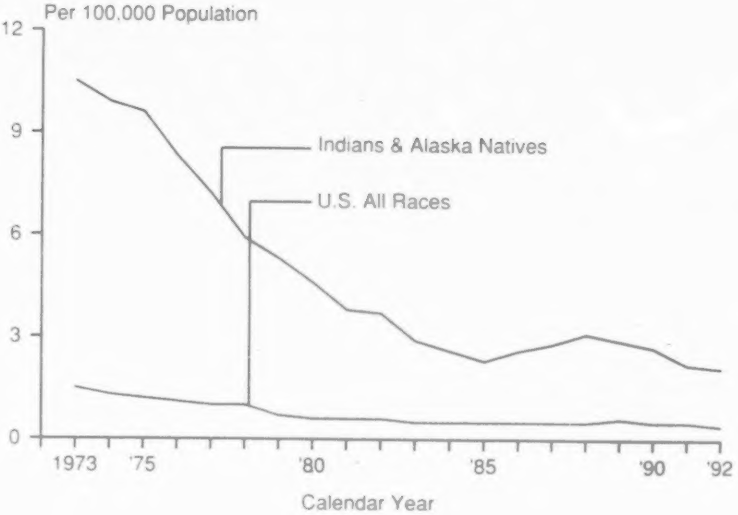

Table 4.33
Tuberculosis Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	24						
1991–1993 (1992)	19	2.1	1,705	0.4	0.3	5.3	7.0
1990–1992 (1991)	25	2.2	1,713	0.5	0.3	4.4	7.3
1989–1991 (1990)	24	2.7	1,810	0.5	0.3	5.4	9.0
1988–1990 (1989)	33	2.9	1,970	0.6	0.3	4.8	9.7
1987–1989 (1988)	25	3.1	1,921	0.5	0.3	6.2	10.3
1986–1988 (1987)	28	2.8	1,755	0.5	0.3	5.6	9.3
1985–1987 (1986)	24	2.6	1,782	0.5	0.3	5.2	8.7
1984–1986 (1985)	18	2.3	1,752	0.5	0.3	4.6	7.7
1983–1985 (1984)	17	2.6	1,729	0.5	0.3	5.2	8.7
1982–1984 (1983)	30	2.9	1,779	0.5	0.3	5.8	9.7
1981–1983 (1982)	22	3.7	1,807	0.6	0.4	6.2	9.3
1980–1982 (1981)	30	3.8	1,937	0.6	0.4	6.3	9.5
1979–1981 (1980)	31	4.6	1,978	0.6	0.4	7.7	11.5
1978–1980 (1979)	33	5.3	2,007	0.7	0.4	7.6	13.3
1977–1979 (1978)	40	5.9	2,914	1.0	0.7	5.9	8.4
1976–1978 (1977)	33	7.2	2,968	1.0	0.7	7.2	10.3
1975–1977 (1976)	48	8.3	3,130	1.1	0.8	7.5	10.4
1974–1976 (1975)	53	9.6	3,333	1.2	0.9	8.0	12.0
1973–1975 (1974)	48	9.9	3,513	1.3	0.9	7.6	11.0
1972–1974 (1973)	45	10.5	3,875	1.5	1.1	7.0	9.5
(1972)	50		4,376				
1954–1956 (1955)	253	57.9	14,940	8.4	6.2	6.9	9.3

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

Chart 4.34
Age-Adjusted Diabetes Mellitus Death Rates

The age-adjusted diabetes mellitus death rate for American Indians and Alaska Natives is higher today than it was in 1972-1974 when it was 28.1 deaths per 100,000 population. In 1991-1993, the Indian rate of 31.7 was 2.7 times the U.S. All Races rate of 11.9 in 1992. This 1992 U.S. rate is less than the rate was in 1973, i.e., 13.2.

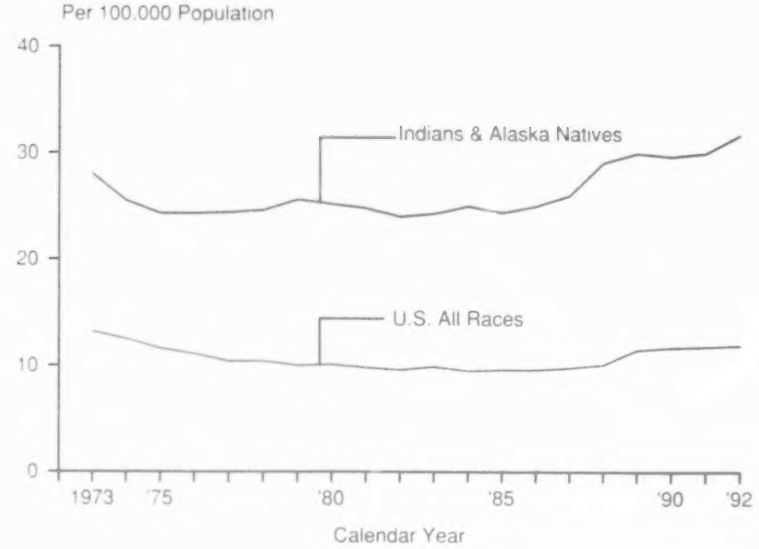

Table 4.34
Diabetes Mellitus Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	354						
1991–1993 (1992)	324	31.7	50,067	11.9	10.5	2.7	3.0
1990–1992 (1991)	275	30.0	48,951	11.8	10.5	2.5	2.9
1989–1991 (1990)	285	29.7	47,664	11.7	10.4	2.5	2.9
1988–1990 (1989)	301	30.0	46,833	11.5	10.3	2.6	2.9
1987–1989 (1988)	260	29.1	40,368	10.1	9.0	2.9	3.2
1986–1988 (1987)	227	26.0	38,532	9.8	8.7	2.7	3.0
1985–1987 (1986)	195	25.0	37,184	9.6	8.5	2.6	2.9
1984–1986 (1985)	208	24.4	36,969	9.6	8.6	2.5	2.8
1983–1985 (1984)	189	25.0	35,787	9.5	8.5	2.6	2.9
1982–1984 (1983)	179	24.3	36,246	9.9	8.9	2.5	2.7
1981–1983 (1982)	164	24.0	34,583	9.6	8.7	2.5	2.8
1980–1982 (1981)	156	24.8	34,642	9.8	8.8	2.5	2.8
1979–1981 (1980)	173	25.2	34,851	10.1	9.1	2.5	2.8
1978–1980 (1979)	153	25.6	33,192	10.0	9.0	2.6	2.8
1977–1979 (1978)	147	24.6	33,841	10.4	9.4	2.4	2.6
1976–1978 (1977)	133	24.4	32,989	10.4	9.4	2.3	2.6
1975–1977 (1976)	125	24.3	34,508	11.1	10.0	2.2	2.4
1974–1976 (1975)	123	24.3	35,230	11.6	10.4	2.1	2.3
1973–1975 (1974)	110	25.5	37,329	12.5	11.4	2.0	2.2
1972–1974 (1973)	117	28.1	38,208	13.2	11.8	2.1	2.4
(1972)	129		38,674				
1954–1956 (1955)	64	17.0	25,488	13.0	12.6	1.3	1.3

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Number of deaths and U.S. rates are for the single year specified.

Chart 4.35
Age-Adjusted Gastrointestinal Disease Death Rates

The age-adjusted gastrointestinal disease death rate for American Indians and Alaska Natives has decreased 76 percent since the 1972-1974 rate of 6.2 deaths per 100,000 population. In 1991-1993, the Indian rate (1.5) was slightly higher than the 1992 U.S. All Races rate (1.3).

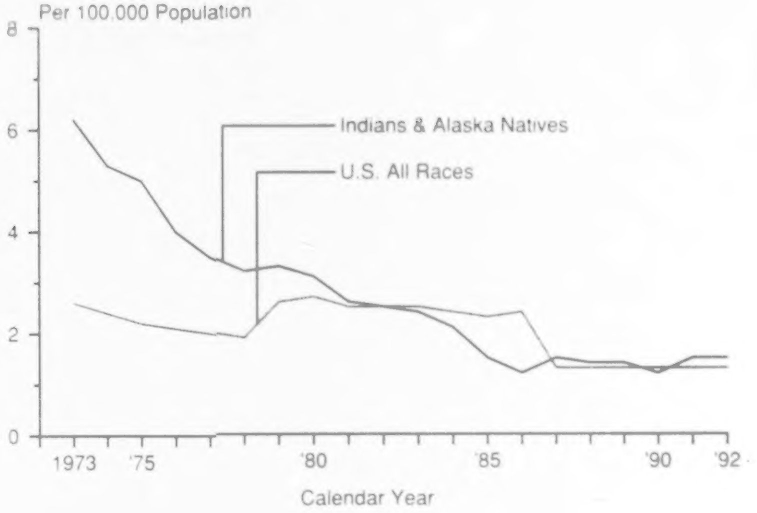

Table 4.35
Gastrointestinal Disease Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native Number	Indian and Alaska Native Rate	U.S. All Races Number	U.S. All Races Rate	U.S. White Rate	Ratio Indian to: U.S. All Races	Ratio Indian to: U.S. White
(1993)	17						
1991–1993 (1992)	18	1.5	6.338	1.3	1.2	1.2	1.3
1990–1992 (1991)	18	1.5	6.220	1.3	1.2	1.2	1.3
1989–1991 (1990)	17	1.2	6.007	1.3	1.2	0.9	1.0
1988–1990 (1989)	9	1.4	5.897	1.3	1.2	1.1	1.2
1987–1989 (1988)	24	1.4	5.771	1.3	1.5	1.1	0.9
1986–1988 (1987)	14	1.5	5.629	1.3	1.5	1.2	1.0
1985–1987 (1986)	15	1.2	5.622	2.4	1.2	0.5	1.0
1984–1986 (1985)	13	1.5	5.525	2.3	1.3	0.7	1.2
1983–1985 (1984)	21	2.1	5.594	2.4	1.4	0.9	1.6
1982–1984 (1983)	25	2.4	5.709	2.5	1.4	1.0	1.9
1981–1983 (1982)	18	2.5	5.639	2.5	1.2	1.0	2.2
1980–1982 (1981)	20	2.6	5.733	2.5	1.2	1.0	2.2
1979–1981 (1980)	29	3.1	6.076	2.7	1.6	1.2	2.0
1978–1980 (1979)	29	3.3	5.687	2.6	1.8	1.4	2.0
1977–1979 (1978)	26	3.2	6.201	1.9	1.8	1.8	1.9
1976–1978 (1977)	28	3.5	6.156	2.0	1.8	2.1	2.3
1975–1977 (1976)	37	4.0	6.251	2.1	1.9	2.3	2.5
1974–1976 (1975)	36	5.0	6.558	2.2	2.1	2.6	2.8
1973–1975 (1974)	44	5.3	7.066	2.4	2.3	2.5	2.7
1972–1974 (1973)	37	6.2	7.371	2.6	2.4	2.7	2.9
(1972)	43						
1954–1956 (1955)	165	15.4		3.6	3.1	4.3	5.0

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified. Starting in 1979 cause-of-death codes which define gastrointestinal deaths were revised to exclude ICD-9 code 557 (vascular insufficiency of intestine). Currently ICD-9 codes that define gastrointestinal disease deaths include: 004, 006, 007, 008, 009, 535, 555, 556, 558, and 562.

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Chart 4.36
Human Immunodeficiency Virus (HIV) Infection Death Rates

The number of HIV deaths for American Indians and Alaska Natives residing in the entire U.S. in 1993 (101) is 5 times the number in 1987 (20). Essentially the same relationship (a ratio of 4.9 to 1) exists for Indians residing in the IHS service area, i.e., there were 39 deaths in 1993 compared to 8 in 1987. However, IHS service area Indians comprise about 60 percent of all U.S. Indians, but in 1993 had only 39 percent of total Indian HIV deaths.

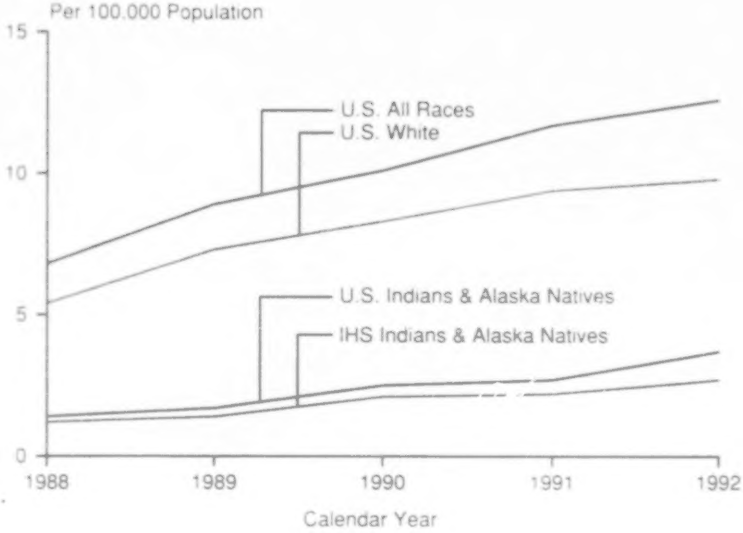

Table 4.36
Human Immunodeficiency Virus (HIV) Infection Deaths and Mortality Rates

American Indians and Alaska Natives, U.S. and IHS Service Area, and U.S. All Races and White Populations, 1987-1993

Age-Adjusted Rate per 100,000 Population

Calendar Year(s)	Indian and Alaska Native: Entire United States Number	Indian and Alaska Native: Entire United States Rate	Indian and Alaska Native: IHS Service Area Number	Indian and Alaska Native: IHS Service Area Rate	U.S. All Races Number	U.S. All Races Rate	U.S. White Rate
(1993)	101		39				
1991–1993 (1992)	57	3.7	20	2.7	33,566	12.6	9.8
1990–1992 (1991)	76	2.7	38	2.2	29,555	11.7	9.4
1989–1991 (1990)	36	2.5	16	2.1	25,188	10.1	8.3
1988–1990 (1989)	36	1.7	16	1.4	22,082	8.9	7.3
1987–1989 (1988)	26	1.4	13	1.2	16,602	6.8	5.4
(1987)	20		8		13,468	5.5	4.5

NOTE: Includes causes of death with ICD-9 Codes 042-044, first classified in 1987. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified. Age-adjusted rates based on less than 20 deaths during a 3-year period should be interpreted with caution.

Chart 4.37

Life Expectancy at Birth

Life expectancy at birth for American Indians and Alaska Natives in 1972-1974 was nearly 8 years less than the life expectancy of the U.S. All Races and White populations in 1973. For 1991-1993 versus 1992, the gap with U.S. All Races population has narrowed to 2.6 years and with the White population to 3.3 years.

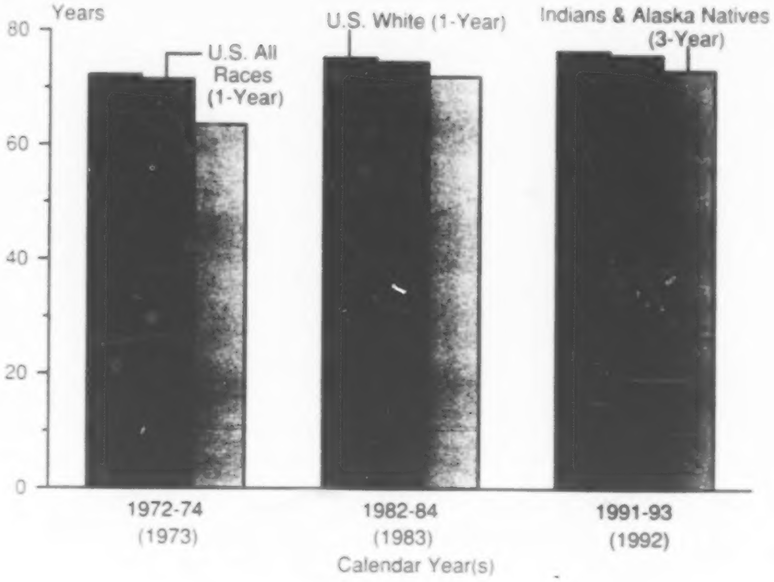

Chart 4.38

Years of Potential Life Lost

The years of potential life lost rate for American Indians and Alaska Natives in 1991-1993 (81.1 per 1,000 population) is less than half of what it was in 1972-1974 (188.3). Although the ratios have decreased considerably over this time period, the Indian rate is still 1.5 times the U.S. All Races rate (54.1) and 1.7 times the White rate (47.7) in 1992.

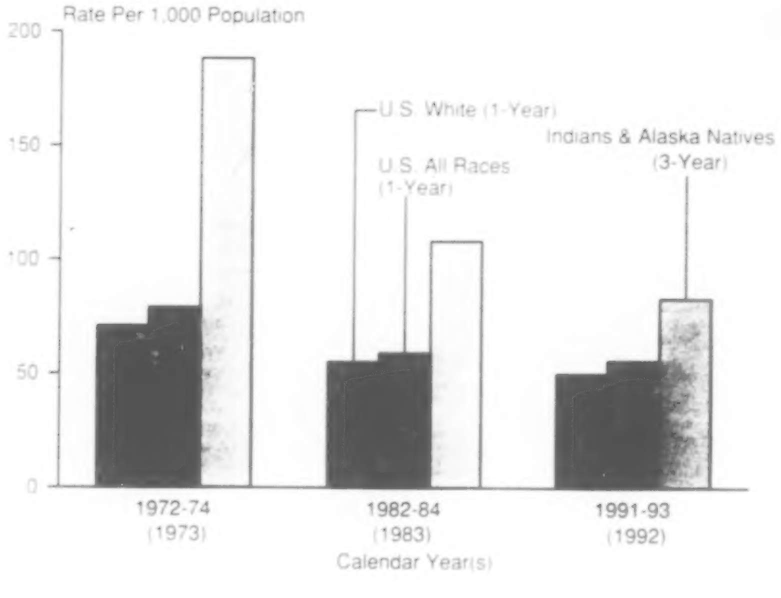

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Chart 4.39
Age-Adjusted Mortality Rates

The age-adjusted mortality rate (all causes) for American Indians and Alaska Natives has decreased 41 percent from 1972-1974 (1,007.4 per 100,000 population) to 1991-1993 (594.1). From 1973 to 1992, the U.S. All Races rate decreased 27 percent (692.9 to 504.5) and the White rate decreased 28 percent (659.3 to 477.5).

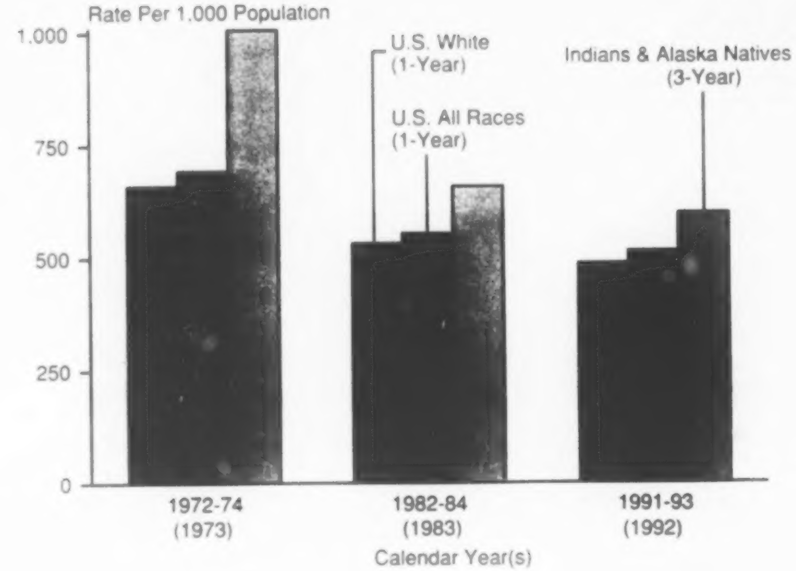

Table 4.37
Overall Measures of Indian Health

IHS Service Area Population Compared with the U.S. All Races and White Populations

	Life Expectancy At Birth (Years)	Years of Potential Life Lost (Rate per 1,000 Population)	Age-Adjusted Mortality Rate (per 100,000 Population)
IHS Service Area:			
1991–1993	73.2	81.1	594.1
1982–1984	72.0	100.5	638.0
1972–1974	63.5	188.3	1,007.4
U.S. All Races:			
1992	75.8	54.1	504.5
1983	74.6	58.5	550.5
1973	71.4	78.9	692.9
U.S. White:			
1992	76.5	47.7	477.5
1983	75.2	54.8	528.0
1973	72.2	70.8	659.3
RATIO: IHS to U.S. All Races:			
1991–1993(1992)	0.97	1.50	1.18
1982–1984(1983)	0.96	1.72	1.16
1972–1974(1973)	0.85	2.39	1.45
RATIO: IHS to U.S. White:			
1991–1993(1992)	0.96	1.70	1.24
1982–1984(1983)	0.96	1.83	1.21
1972–1974(1973)	0.84	2.66	1.53

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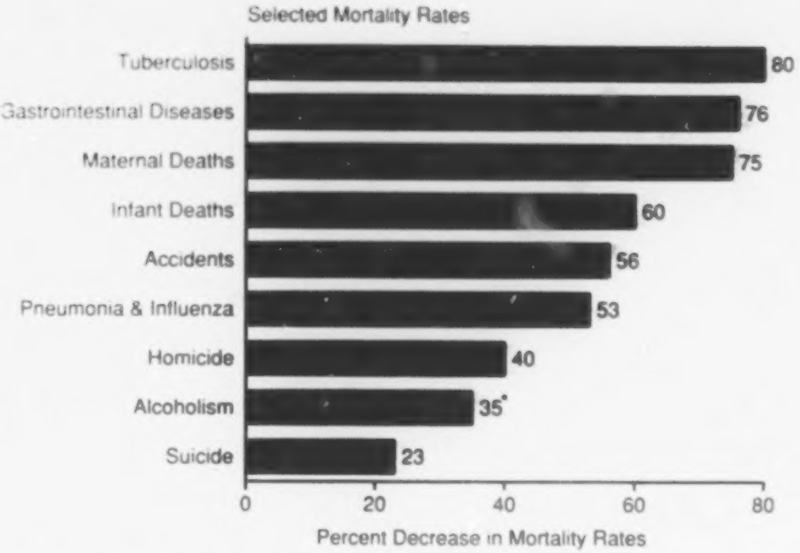
Chart 4.40
Indian Health Service Program Accomplishments Since 1973

The Indian Health Service maternal and infant mortality review committees have helped to reduce the infant mortality rate 60 percent and the maternal mortality rate 75 percent since 1972-1974. Likewise, the Indian Health Service tuberculosis control program has helped to reduce the age-adjusted tuberculosis mortality rate 80 percent.



* Alcoholism rate decrease since 1980

Table 4.40
Program Accomplishments

IHS Service Area

Health Improvements	CYs 1972–1974 Rate	CYs 1991–1993 Rate	Percent Decrease
Death Rates:			
Infant [1]	22.2	8.8	60
Maternal [2]	27.7	6.9	75
Pneumonia and influenza [3]	40.8	19.2	53
Tuberculosis, all forms [3]	10.5	2.1	80
Gastrointestinal diseases [3]	6.2	1.5	76
Accidents [3]	188.0	83.4	56
Suicide [3]	21.0	16.2	23
Homicide [3]	24.3	14.6	40
Alcoholism [3]	[4] 59.0	38.4	35

[1] Rate per 1,000 live births.

[2] Rate per 100,000 live births.

[3] Age-adjusted rate per 100,000 population.

[4] 1979-81 age-adjusted alcoholism mortality rate, since specific mortality codes currently used to identify alcoholism deaths were not in use prior to 1979.

PART 5 - PATIENT CARE STATISTICS

Chart 5.1
Indian Health Service Tribal Health Contract and Grant/Compact Awards

Indian Health Service contract and grant/compact awards for Tribal health in FY 1995 are triple what they were in FY 1987, $632.5 million compared to $210.7 million.

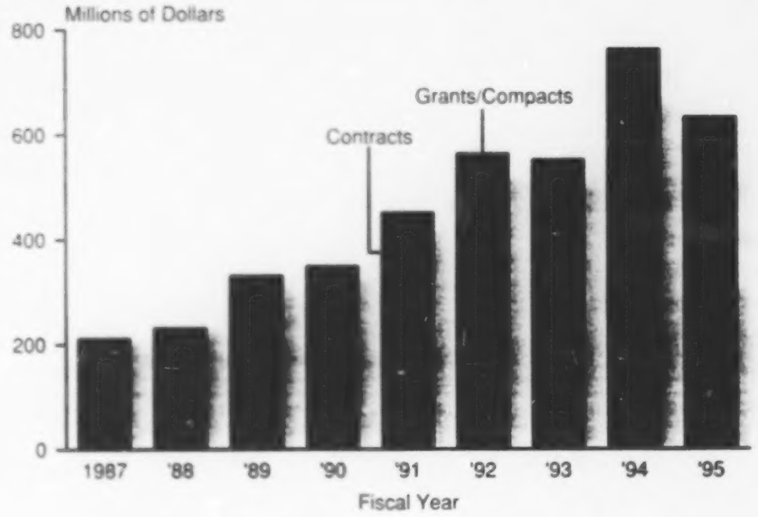


Table 5.1
IHS Tribal Health Contract and Grant/Compact Awards, FY 1975–1995

Millions of Dollars

Fiscal Year	Total	Contracts [1]	Grants/Compacts [2]
1995	$632.5	$297.5	$335.0
1994	762.6	648.1	114.5
1993	551.4	491.5	59.9
1992	562.5	511.6	50.9
1991	450.2	410.1	40.1
1990	348.1	320.7	27.4
1989	330.1	306.6	23.5
1988	230.3	217.2	13.1
1987	210.7	200.9	9.8
1986	209.1	199.0	10.1
1985	234.0	218.1	15.9
1984	194.0	177.5	16.5
1983	157.7	143.1	14.6
1982	141.1	126.5	14.6
1981	142.8	130.7	12.1
1980	121.9		
1979	74.0		
1978	70.1		
1977	57.9		
1976	32.6		
1975	17.4		

[1] Starting in 1989, contracts issued to Tribal organizations for the construction of health facilities by the Office of Engineering Services are included in the contracts category. Contract awards also include those issued by IHS Area Offices and IHS Headquarters and exclude purchase orders below $25,000. Includes new contracts and contract modifications.

[2] Project grant obligations shown for first time in FY 1981. During 1987 and 1988, IHS Scholarship Program funding was reported under contracts rather than grants. The IHS Loan Repayment Program was initiated as a contract program starting in 1988. Both the IHS Scholarship and the IHS Loan Repayment programs were converted to grant programs in 1989. Includes Urban Indian Health Program grants that were first awarded in 1991. Includes Tribal self-governance compact grants that were first awarded in 1993. Includes self-governance cooperative agreements and self-governance compacts starting in 1994.

NOTE: Contract report completed as of April 2, 1996. Grant report completed as of April 4, 1996.

SOURCE: For Contract Data: 1988 to present, PHS Contract Information System, Room 18–50, Parklawn Bldg., 443–4759, prior to 1988, the IMPAC Data System run by NIH for PHS, and For Grant Data: PHS Grants Data System.

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Chart 5.2
Indian Health Service Tribal Health Contract and Grant/Compact Awards by Type, FY 1995

The $300 million reported under the P.L. 93-638 Project Grants/Compacts category for FY 1995 comprised 47 percent of the total Indian Health Service contract and grant/compact awards for Tribal health. P.L. 93-638 contracts amounted to $241 million or 38 percent of the total.

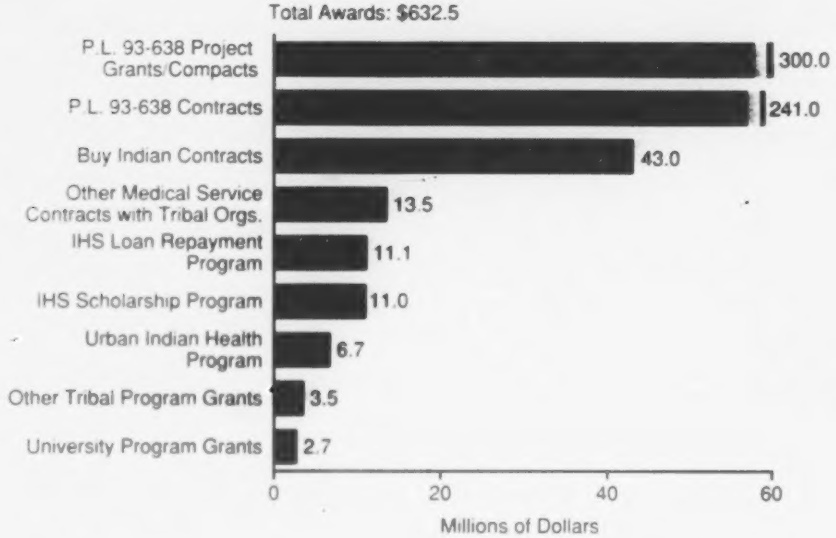

Table 5.2
IHS Tribal Health Contract and Grant/Compact Awards by Type, FY 1995

Type of Contract or Grant	Total $ Awarded (Millions)	Percent Distribution
Contract and Grant Total	$632.5	100.0
Contract, Total [1]	297.5	47.0
P.L. 93–638 Contracts	241.0	38.1
Buy Indian Contracts	43.0	6.8
Other Types of Medical Services Contracts with Tribal Organizations [2]	13.5	2.1
Grant/Compact, Total	335.0	53.0
P.L. 93–638 Project Grants/Compacts [3]	300.0	47.4
IHS Loan Repayment Program	11.1	1.8
IHS Scholarship Program	11.0	1.7
Urban Indian Health Programs [4]	6.7	1.1
Other Tribal Program Grants [5]	3.5	0.6
University Program Grants [6]	2.7	0.4

[1] Contract awards include those of IHS Area Offices, IHS Headquarters and the Office of Engineering Services. They include new contracts and contract modifications, indirect costs, and exclude purchase orders below $25,000.

[2] Includes medical service contracts with American Indian/Alaska Native managed organizations (solicitation procedure code 4K).

[3] Includes Tribal management grants, health service delivery grants, self-governance cooperative agreements, and self-governance compacts.

[4] Urban Indian Health Program grants.

[5] Includes tribal grants for mental health, child abuse, tribal research, tribal matching scholarships, adolescent health, tribal recruitment/retention, other special projects and Alaska Area grants.

[6] Includes grants to universities that conduct recruitment and training programs.

NOTE: Contract report completed as of April 2, 1996. Grant report completed as of April 4, 1996.

SOURCE: PHS-Contract Information System, Rm. 18–50, Parklawn Bldg., 443–4759, and the PHS Grants Data System

Chart 5.3
Urban Indian Health Program Workload and Appropriation

The appropriation for the Urban Indian Health Program has increased 133 percent since FY 1985. Although the workload increased 44 percent during this time period, this is at a greater rate than the appropriation when inflation is taken into account. In FY 1994, the appropriation for this program was $22.8 million, and there were over 727,000 patient encounters.

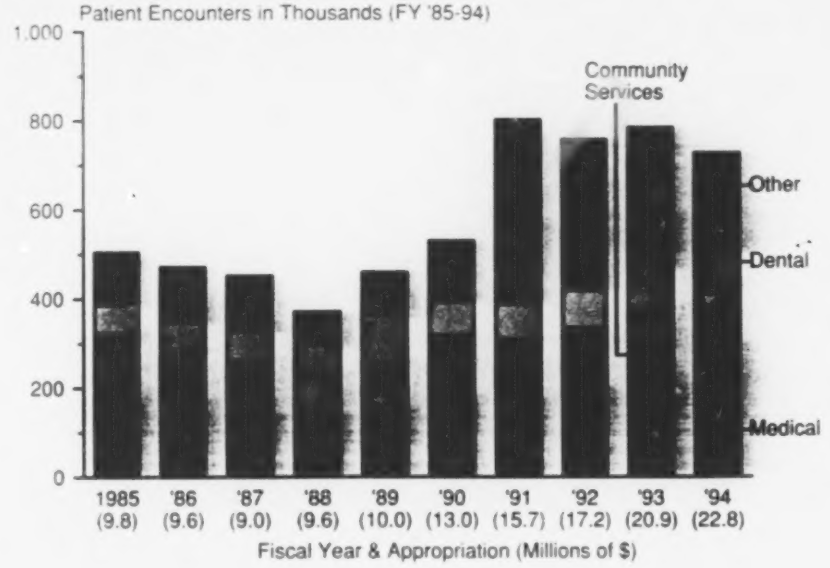

Table 5.3
Urban Indian Health Program Workload and Appropriation, FY 1985–1994

Fiscal Year	Total Workload	Medical	Community Services	Dental	Other[1]	Appropriation ($ Thousands)
1994	727,425	299,538	140,920	62,743	224,224	22,834
1993[2]	784,581	229,737	151,139	88,845	314,860	20,965
1992	757,606	192,921	142,658	82,076	339,951	17,195
1991	802,335	172,297	138,204	76,028	415,806	15,687
1990	530,228	181,974	137,200	72,470	138,584	13,049
1989	459,684	150,472	106,940	102,886	99,386	9,962
1988	370,684	128,000	102,481	64,609	75,853	9,624
1987[3]	451,988	146,228	116,898	62,377	126,485	9,000
1986	471,757	163,004	124,783	57,663	126,307	9,644
1985	504,799	170,913	153,761	60,956	119,169	9,800

[1] The Other category includes the following types of services: nutrition education, health education, mental health, optometric services, and other allied health services which includes substance abuse counseling.

[2] Includes $2.0 million in urban alcohol programs transferred to the IHS Urban Program Branch from the IHS Alcohol and Substance Abuse Program Branch.

[3] Beginning in Fiscal Year 1987 and thereafter, the Tulsa and Oklahoma City Urban Programs are excluded since they were funded as demonstration projects under the IHS hospitals and clinics activity.

Chart 5.4
Number of Hospital Admissions, IHS and Tribal Direct and Contract General Hospitals

Total hospital admissions peaked in FY 1978 at 112,000. In FY 1994, there were about 91,000 total admissions.

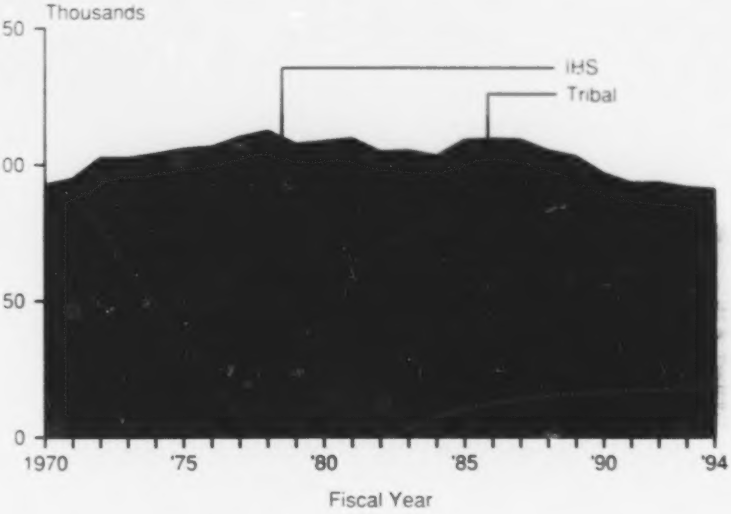

Table 5.4
Number of Admissions

IHS and Tribal Direct and Contract General Hospitals, Fiscal Years 1955–1995

Fiscal Year	Total IHS and Tribal Admissions	Indian Health Service			Tribal		
		Total	Direct	Contract	Total	Direct	Contract
1995	NA	NA	56.796	NA	NA	11.034	NA
1994	90.921	77.408	60.950	16.458	13.513	8.411	5.102
1993	91.542	77.646	60.575	17.071	13.896	8.443	5.453
1992	93.271	78.897	61.992	16.905	14.374	9.017	5.357
1991	93.180	81.746	64.312	17.434	11.434	6.924	4.510
1990	96.539	83.462	65.972	17.490	13.077	7.022	6.055
1989	102.793	89.777	71.243	18.534	13.016	6.558	6.458
1988	104.868	92.393	76.488	15.905	12.475	6.111	6.364
1987	108.835	95.700	76.244	19.456	13.135	5.953	7.182
1986	109.181	96.886	78.162	18.724	12.295	4.969	7.326
1985	108.777	98.245	78.423	19.822	10.532	3.678	[2] 6.854
1980	108.242	106.992	77.798	29.194	1.250	1.250	
1975	105.735	105.735	74.594	31.141			
1970	92.710	92.710	67.877	24.833			
1965	91.744	91.744	67.744	24.000			
1960	76.754	76.754	56.874	19.880			
1955	50.143	50.143	42.762	7.381			

[1] Number of discharges used as estimate for number of admissions.

[2] Comparable Tribal contract health services data not available prior to FY 1985.

NOTE: NA denotes data not available.

SOURCE: IHS Direct: Monthly Report of Inpatient Services (Form IHS-202-1)
IHS Contract: Annual Report 3I
Tribal Direct: Monthly Report of Inpatient Services
Tribal Contract: IHS Area Submissions

Chart 5.5
Average Daily Hospital Patient Load, IHS and Tribal Direct and Contract General Hospitals

The average daily hospital patient load in Indian Health Service and Tribal direct and contract general hospitals has decreased 54 percent since FY 1970. In FY 1994, the average patient load was 1,087 per day.

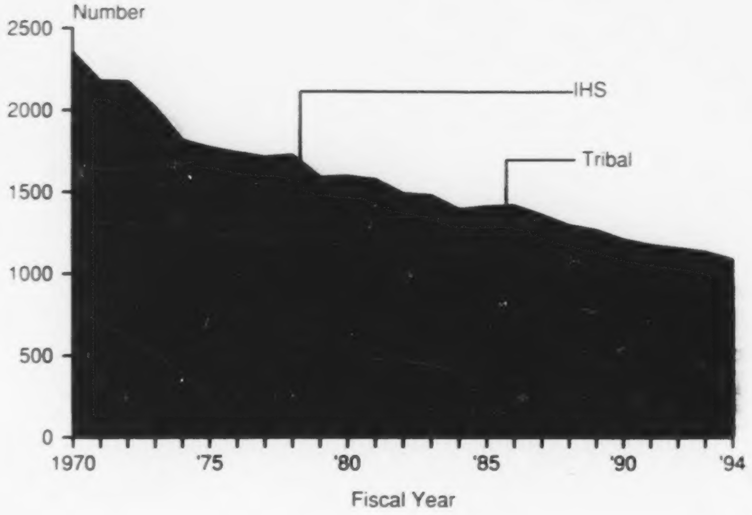

Table 5.5
Average Daily Patient Load

IHS and Tribal Direct and Contract General Hospitals, Fiscal Years 1955-1995

Fiscal Year	Total IHS and Tribal Admissions	Indian Health Service			Tribal		
		Total	Direct	Contract	Total	Direct	Contract
1995	NA	NA	672	NA	NA	126	NA
1994	1,087	929	709	220	158	100	58
1993	1,133	963	735	228	170	108	62
1992	1,155	982	758	224	173	112	61
1991	1,174	1,025	794	231	149	96	53
1990	1,209	1,053	825	228	156	90	66
1989	1,265	1,107	873	234	158	90	68
1988	1,295	1,133	939	194	162	88	74
1987	1,359	1,193	960	233	166	87	79
1986	1,418	1,248	1,017	231	170	81	89
1985	1,410	1,286	1,052	234	124	47	[1] 77
1980	1,594	1,576	1,178	398	18	18	
1975	1,768	1,758	1,330	438			
1970	2,353	2,353	1,729	624			
1965	3,127	3,127	2,244	883			
1960	3,142	3,142	2,232	910			
1955	3,711	3,711	2,531	1,180			

[1] Tribal contract data not available prior to FY 1985.

NOTE: NA denotes data not available.

SOURCE: IHS Direct: Monthly Report of Inpatient Services (Form IHS-202-1)
IHS Contract: Annual Report 3I
Tribal Direct: Monthly Report of Inpatient Services
Tribal Contract: IHS Area Submissions

Chart 5.6

Leading Causes of Hospitalization: Ages Under 1 year, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 46.1 percent of all discharges for patients under 1 year of age from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by perinatal period conditions at 14.3 percent.

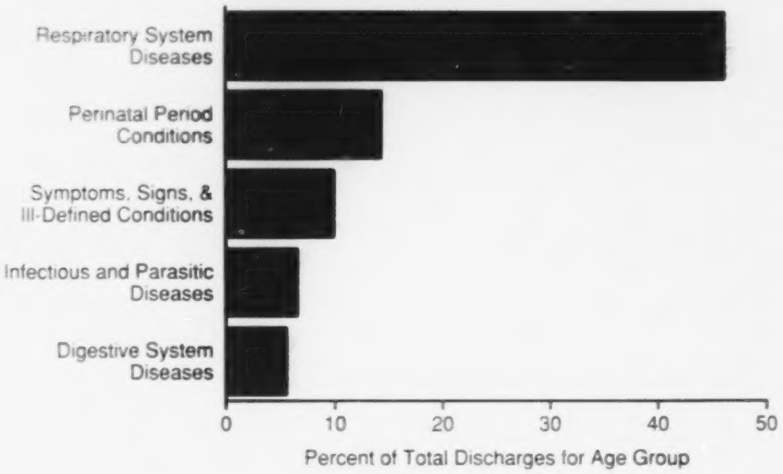

Table 5.6

Ten Leading Causes of Hospitalization for GM&S Patients Under 1 Year of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

	Number of Discharges			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	4,995	2,759	2,236	100.0	55.2	44.8
				100.0	100.0	100.0
Respiratory system diseases	2,304	1,335	969	46.1	48.4	43.3
Perinatal period conditions	712	380	332	14.3	13.8	14.8
Symptoms, signs, & ill-defined conditions	493	263	230	9.9	9.5	10.3
Infectious and parasitic diseases	323	164	159	6.5	5.9	7.1
Digestive system diseases	276	161	115	5.5	5.8	5.1
Supplementary classification	192	93	99	3.8	3.4	4.4
Nervous system & sense organ diseases	181	103	78	3.6	3.7	3.5
Congenital anomalies	140	68	72	2.8	2.5	3.2
Genitourinary system diseases	112	50	62	2.2	1.8	2.8
Injury and poisoning	91	45	46	1.8	1.6	2.1
All other	171	97	74	3.4	3.5	3.3

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

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Chart 5.7
Leading Causes of Hospitalization: Ages 1 to 4 years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 46.2 percent of all discharges for patients 1 to 4 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning at 9.8 percent.

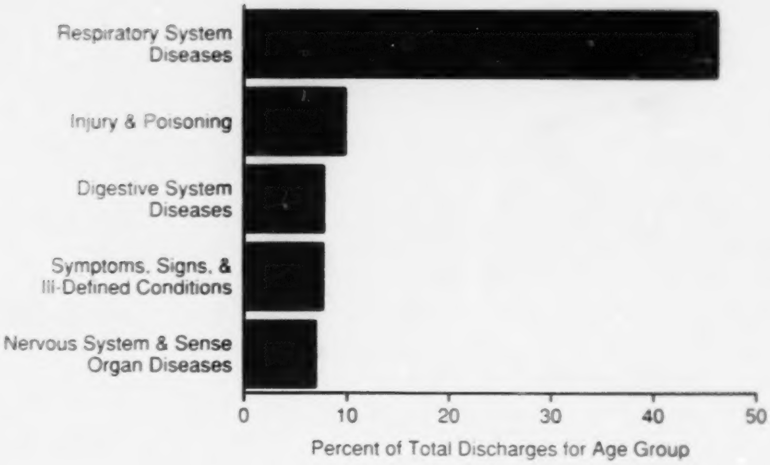

Table 5.7
Ten Leading Causes of Hospitalization for GM&S Patients 1 to 4 Years of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	4,369	2,420	1,949	100.0	55.4	44.6
				100.0	100.0	100.0
Respiratory system diseases	2,017	1,133	884	46.2	46.8	45.4
Injury and poisoning	427	255	172	9.8	10.5	8.8
Digestive system diseases	337	200	137	7.7	8.3	7.0
Symptoms, signs, & ill-defined conditions	333	187	146	7.6	7.7	7.5
Nervous system & sense organ diseases	300	172	128	6.9	7.1	6.6
Infectious and parasitic diseases	244	126	118	5.6	5.2	6.1
Skin and subcutaneous tissue diseases	214	115	99	4.9	4.8	5.1
Endocrine, nutritional, & metabolic disorders	148	69	79	3.4	2.9	4.1
Genitourinary system diseases	112	34	78	2.6	1.4	4.0
Supplementary classification	57	23	34	1.3	1.0	1.7
All other	180	106	74	4.1	4.4	3.8

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.8

Leading Causes of Hospitalization: Ages 5 to 14 years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 22.8 percent of all discharges for patients 5 to 14 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning at 17.4 percent.

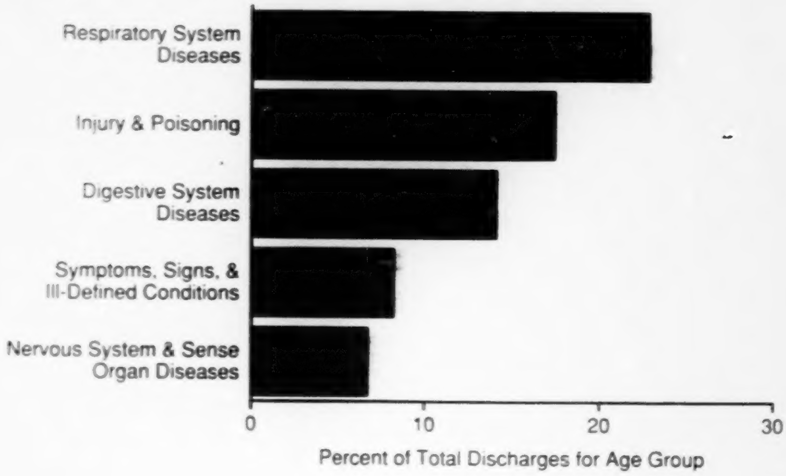

Table 5.8

Ten Leading Causes of Hospitalization for GM&S Patients 5 to 14 Years of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	4,682	2,474	2,208	100.0	52.8	47.2
				100.0	100.0	100.0
Respiratory system diseases	1,069	522	547	22.8	21.1	24.8
Injury and poisoning	815	465	350	17.4	18.8	15.9
Digestive system diseases	661	384	277	14.1	15.5	12.5
Symptoms, signs, & ill-defined conditions	382	202	180	8.2	8.2	8.2
Nervous system & sense organ diseases	315	181	134	6.7	7.3	6.1
Skin and subcutaneous tissue diseases	285	177	108	6.1	7.2	4.9
Infectious and parasitic diseases	236	127	109	5.0	5.1	4.9
Endocrine, nutritional & metabolic disorders	156	83	73	3.3	3.4	3.3
Genitourinary system diseases	155	39	116	3.3	1.6	5.3
Mental disorders	152	61	91	3.2	2.5	4.1
All other	456	233	223	9.7	9.4	10.1

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.9

Leading Causes of Hospitalization: Ages 15 to 24 years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 53.7 percent of all discharges for patients 15 to 24 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to complications of pregnancy, childbirth, and the puerperium. This was followed by injury and poisoning at 12.9 percent.

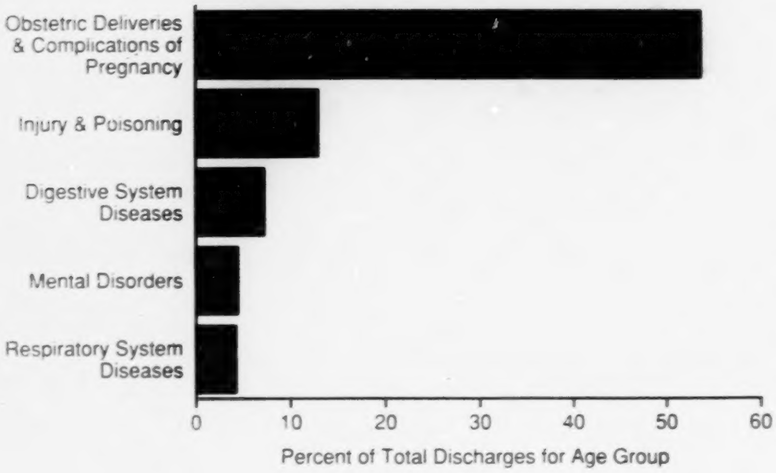

Table 5.9

Ten Leading Causes of Hospitalization for GM&S Patients 15 to 24 Years of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

Diagnostic Category	Number of Discharges Combined	Number of Discharges Male	Number of Discharges Female	Percent Distribution Combined	Percent Distribution Male	Percent Distribution Female
All categories	14,006	3,039	10,967	100.0	21.7	78.3
				100.0	100.0	100.0
Complications of pregnancy, childbirth & the puerperium	7,521	0	7,521	53.7	0.0	68.6
Injury and poisoning	1,809	1,182	627	12.9	38.9	5.7
Digestive system diseases	1,009	351	658	7.2	11.5	6.0
Mental disorders	620	322	298	4.4	10.6	2.7
Respiratory system diseases	585	244	341	4.2	8.0	3.1
Genitourinary system diseases	544	58	486	3.9	1.9	4.4
Symptoms, signs, & ill-defined conditions	378	153	225	2.7	5.0	2.1
Supplementary classification	299	101	198	2.1	3.3	1.8
Skin and subcutaneous tissue diseases	292	183	109	2.1	6.0	1.0
Endocrine, nutritional, & metabolic disorders	210	89	121	1.5	2.9	1.1
All other	739	356	383	5.3	11.7	3.5

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.10

Leading Causes of Hospitalization: Ages 25 to 44 years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 28.7 percent of all discharges for patients 25 to 44 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to complications of pregnancy, childbirth, and the puerperium. This was followed by digestive system diseases at 13.5 percent.

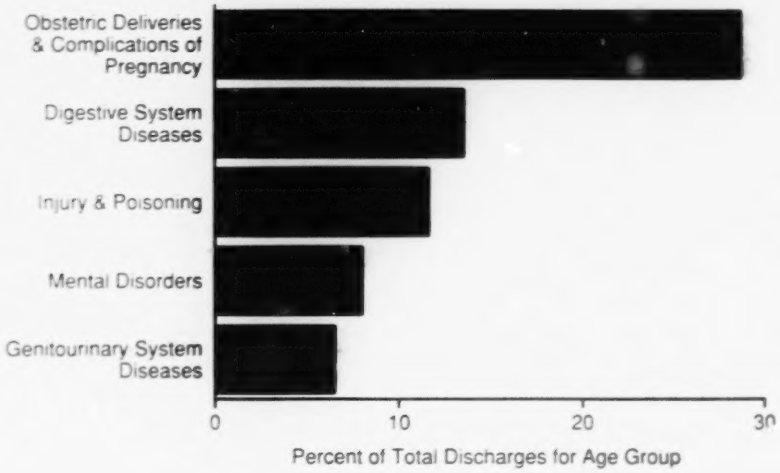

Table 5.10

Ten Leading Causes of Hospitalization for GM&S Patients 25 to 44 Years of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

	Number of Discharges			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	26,774	9,547	17,227	100.0	35.7	64.3
				100.0	100.0	100.0
Complications of pregnancy, childbirth & the puerperium	7,693	0	7,693	28.7	0.0	44.7
Digestive system diseases	3,615	1,623	1,992	13.5	17.0	11.6
Injury and poisoning	3,115	2,052	1,063	11.6	21.5	6.2
Mental disorders	2,137	1,416	721	8.0	14.8	4.2
Genitourinary system diseases	1,735	278	1,457	6.5	2.9	8.5
Respiratory system diseases	1,408	655	753	5.3	6.9	4.4
Symptoms, signs, & ill-defined conditions	1,366	707	659	5.1	7.4	3.8
Skin and subcutaneous tissue diseases	1,036	669	367	3.9	7.0	2.1
Endocrine, nutritional, & metabolic disorders	833	434	399	3.1	4.5	2.3
Musculoskeletal system diseases	784	420	364	2.9	4.4	2.1
All other	3,052	1,293	1,759	11.4	13.5	10.2

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

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Chart 5.11

Leading Causes of Hospitalization: Ages 45 to 54 years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 17.7 percent of all discharges for patients 45 to 54 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to digestive system diseases. This was followed by circulatory system diseases at 12.7 percent.

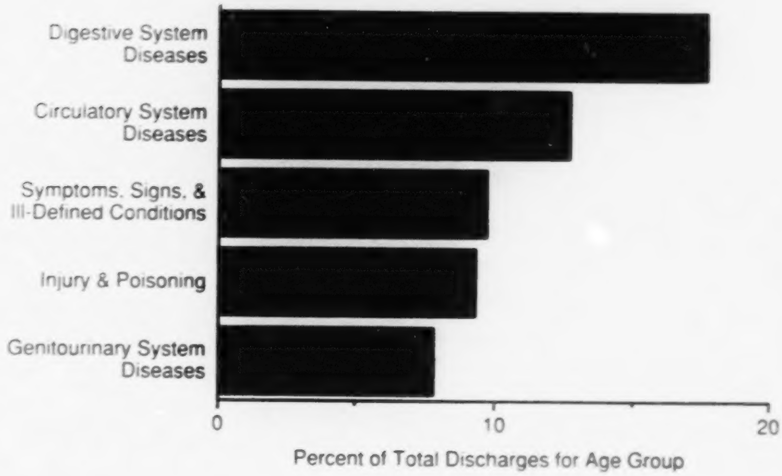

Table 5.11

Ten Leading Causes of Hospitalization for GM&S Patients 45 to 54 Years of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	8,984	4,218	4,766	100.0	47.0	53.0
				100.0	100.0	100.0
Digestive system diseases	1,588	750	838	17.7	17.8	17.6
Circulatory system diseases	1,142	676	466	12.7	16.0	9.8
Symptoms, signs, & ill-defined conditions	867	388	479	9.7	9.2	10.1
Injury and poisoning	836	489	347	9.3	11.6	7.3
Genitourinary system diseases	705	157	548	7.8	3.7	11.5
Respiratory system diseases	696	287	409	7.7	6.8	8.6
Endocrine, nutritional, & metabolic disorders	627	290	337	7.0	6.9	7.1
Skin and subcutaneous tissue diseases	538	297	241	6.0	7.0	5.1
Mental disorders	511	341	170	5.7	8.1	3.6
Musculoskeletal system diseases	407	179	228	4.5	4.2	4.8
All other	1,067	364	703	11.9	8.6	14.8

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.12

Leading Causes of Hospitalization: Ages 55 to 64 years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 18.0 percent of all discharges for patients 55 to 64 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to circulatory system diseases. This was followed by digestive system diseases at 14.5 percent.

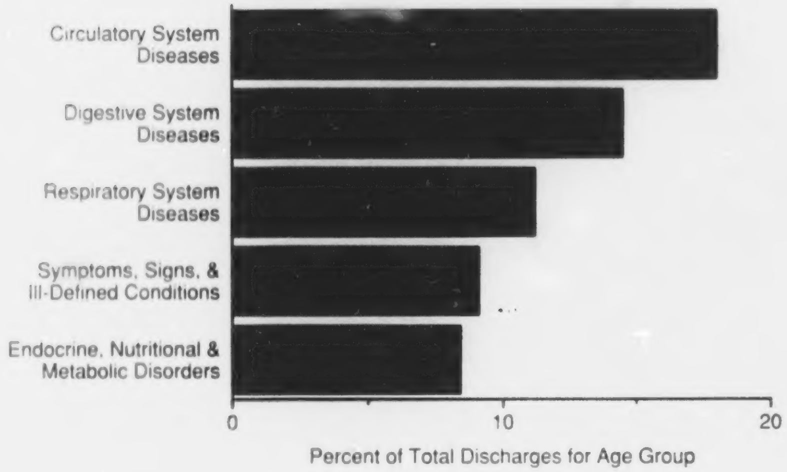

Table 5.12

Ten Leading Causes of Hospitalization for GM&S Patients 55 to 64 Years of Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

Diagnostic Category	Number of Discharges Combined	Number of Discharges Male	Number of Discharges Female	Percent Distribution Combined	Percent Distribution Male	Percent Distribution Female
All categories	8,365	3,890	4,475	100.0	46.5	53.5
				100.0	100.0	100.0
Circulatory system diseases	1,506	799	707	18.0	20.5	15.8
Digestive system diseases	1,215	535	680	14.5	13.8	15.2
Respiratory system diseases	933	429	504	11.2	11.0	11.3
Symptoms, signs, & ill-defined conditions	762	350	412	9.1	9.0	9.2
Endocrine, nutritional & metabolic disorders	705	279	426	8.4	7.2	9.5
Injury and poisoning	577	314	263	6.9	8.1	5.9
Genitourinary system diseases	571	183	388	6.8	4.7	8.7
Skin and subcutaneous tissue diseases	414	218	196	4.9	5.6	4.4
Malignant neoplasms	403	190	213	4.8	4.9	4.8
Musculoskeletal system diseases	358	153	205	4.3	3.9	4.6
All other	921	440	481	11.0	11.3	10.7

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.13

Leading Causes of Hospitalization: Ages 65+ years, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 20.6 percent of all discharges for patients 65 years and older from Indian Health Service and Tribal direct and contract general hospitals pertained to circulatory system diseases. This was followed by respiratory system diseases at 17.3 percent.

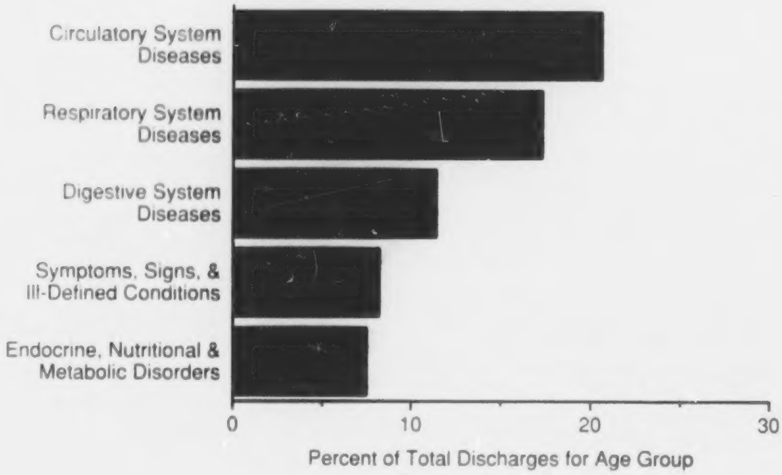

Table 5.13

Ten Leading Causes of Hospitalization for GM&S Patients 65 Years Old and Older

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

	Number of Discharges			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	12.261	5.619	6,642	100.0	45.8	54.2
				100.0	100.0	100.0
Circulatory system diseases	2.524	1.223	1,301	20.6	21.8	19.6
Respiratory system diseases	2.123	1,038	1,085	17.3	18.5	16.3
Digestive system diseases	1,399	621	778	11.4	11.1	11.7
Symptoms, signs, & ill-defined conditions	1,006	478	528	8.2	8.5	7.9
Endocrine, nutritional & metabolic disorders	916	367	549	7.5	6.5	8.3
Genitourinary system diseases	851	333	518	6.9	5.9	7.8
Injury and poisoning	833	335	498	6.8	6.0	7.5
Malignant neoplasms	616	326	290	5.0	5.8	4.4
Skin and subcutaneous tissue diseases	456	211	245	3.7	3.8	3.7
Nervous system & sense organ diseases	361	149	212	2.9	2.7	3.2
All other	1,176	538	638	9.6	9.6	9.6

SOURCE: Direct: Annual Report 2C

Contract: Annual Report 3I

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Chart 5.14

Leading Causes of Hospitalization, IHS and Tribal Direct and Contract Hospitals, FY 1994

In FY 1994, 18.1 percent of all discharges from Indian Health Service and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of puerperium and pregnancy. This was followed by respiratory system diseases at 13.2 percent.

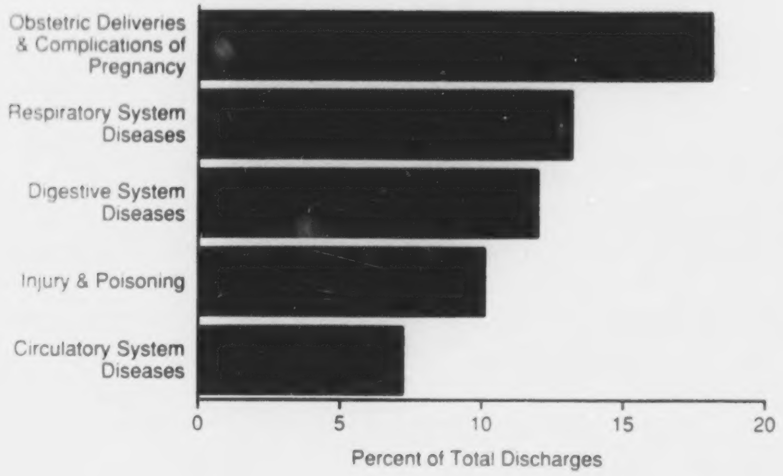

Table 5.14

Ten Leading Causes of Hospitalization for GM&S Patients

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Direct	Contract	Combined	Direct	Contract
All categories	84,436	65,624	18,812	100.0	77.7	22.3
				100.0	100.0	100.0
Obstetric deliveries and complications of pregnancy & puerperium	15,279	13,723	1,556	18.1	20.9	8.3
Respiratory system diseases	11,135	9,381	1,754	13.2	14.3	9.3
Digestive system diseases	10,100	7,574	2,526	12.0	11.5	13.4
Injury and poisoning	8,503	5,490	3,013	10.1	8.4	16.0
Circulatory system diseases	6,078	3,524	2,554	7.2	5.4	13.6
Symptoms, signs, & ill-defined conditions	5,587	4,400	1,187	6.6	6.7	6.3
Genitourinary system diseases	4,785	3,799	986	5.7	5.8	5.2
Mental disorders	3,874	2,761	1,113	4.6	4.2	5.9
Endocrine, nutritional and metabolic disorders	3,672	2,954	718	4.3	4.5	3.8
Skin and subcutaneous tissue diseases	3,285	2,841	444	3.9	4.3	2.4
All other	12,138	9,177	2,961	14.4	14.0	15.7

SOURCE: Direct: Annual Report 2C

Contract: Annual Report 3I

Chart 5.15

Leading Causes of Hospitalization for Males, IHS and Tribal Direct and Contract Hospitals, FY 1994

For males, 16.6 percent of all discharges (FY 1994) from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning (15.1 percent), and digestive system diseases (13.6 percent).

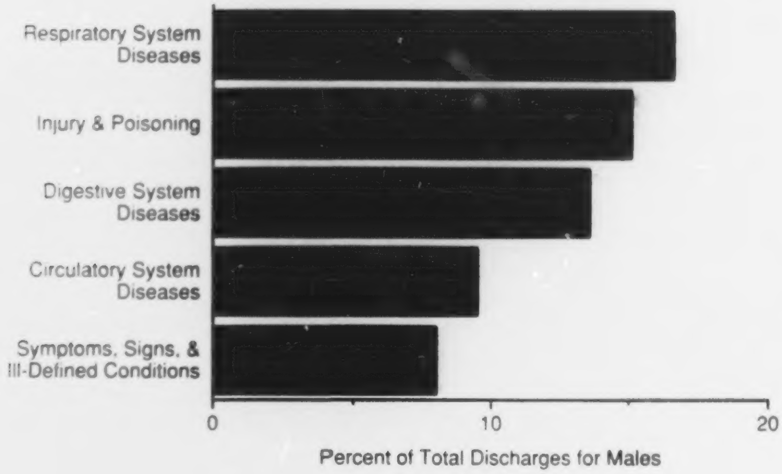

Chart 5.16

Leading Causes of Hospitalization for Females, IHS and Tribal Direct and Contract Hospitals, FY 1994

For females, 30.3 percent of all discharges (FY 1994) from Indian Health Service and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of puerperium and pregnancy. This was followed by respiratory system diseases (10.9 percent), and digestive system diseases (10.8 percent).

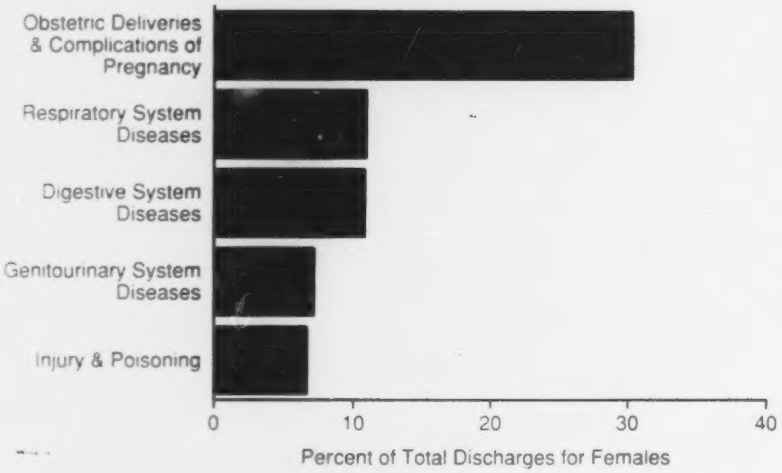

Table 5.15

Ten Leading Causes of Hospitalization by Sex

Indian Health Service and Tribal Direct and Contract General Hospitals, Fiscal Year 1994

Male			Female		
Category	Number of Discharges	Percent of Total	Category	Number of Discharges	Percent of Total
All categories	33,966	100.0	All categories	50,470	100.0
Respiratory system diseases	5,643	16.6	Obstetric deliveries and complications of pregnancy & puerperium	15,279	30.3
Injury and poisoning	5,137	15.1	Respiratory system diseases	5,492	10.9
Digestive system diseases	4,625	13.6	Digestive system diseases	5,475	10.8
Circulatory system diseases	3,241	9.5	Genitourinary system diseases	3,653	7.2
Symptoms, signs, & ill-defined conditions	2,728	8.0	Injury and poisoning	3,366	6.7
Mental disorders	2,427	7.1	Symptoms, signs, & ill-defined conditions	2,859	5.7
Skin and subcutaneous tissue diseases	1,898	5.6	Circulatory system diseases	2,837	5.6
Endocrine, nutritional & metabolic disorders	1,661	4.9	Endocrine, nutritional & metabolic disorders	2,011	4.0
Genitourinary system diseases	1,132	3.3	Mental disorders	1,447	2.9
Musculoskeletal system and connective tissue diseases	1,110	3.3	Skin and subcutaneous tissue diseases	1,387	2.7
All other	4,364	12.8	All other	6,664	13.2

SOURCE: IHS and Tribal Direct: On-Request Report 21
IHS and Tribal Contract: On-Request Report 19

Chart 5.17
Hospital Discharge Rates by Age

For both the Indian Health Service (FY 1994) and U.S. (CY 1993), discharge rates were highest for the age groups under 1 year and over 64 years. The U.S. rate was greater than the Indian rate except for the age group under 1 year.

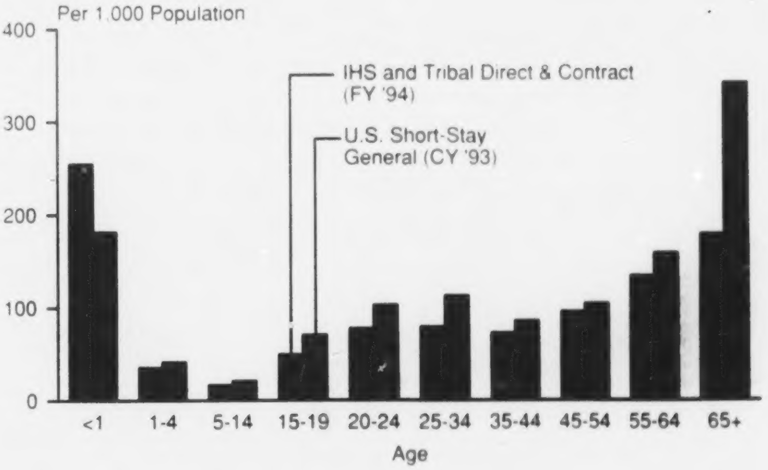

Table 5.17
Comparison of Indian Health Service and U.S. Hospital Discharge Rates by Age

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 1994 and U.S. General Short-Stay Hospitals, CY 1993

	Discharges per 1,000 Population		Percent Difference IHS Rate to U.S. Rate
Age at Admission	IHS	U.S.	
All Ages	69.0	120.2	–42.6
Under 1 year	254.7	181.2	40.6
1–4 years	35.2	41.4	–15.0
5–14 years	16.7	21.0	–20.5
15–19 years	49.6	70.4	–29.5
20–24 years	77.4	102.7	–24.6
25–34 years	79.2	112.6	–29.7
35–44 years	72.3	85.3	–15.2
45–54 years	95.3	104.0	–8.4
55–64 years	133.6	158.1	–15.5
65 years and over	178.5	341.6	–47.7

NOTE: IHS discharge rates were calculated using the IHS FY 1994 user population.
SOURCE: IHS—Annual Reports 2C and 3I
U.S.—Utilization of Short-Stay Hospitals, Annual Summary of the U.S., NCHS

Chart 5.18

Beds per Hospital, IHS (FY 1995) vs U.S. Short-Stay (CY 1994)

76 percent of Indian Health Service and Tribal hospitals (FY 1995) had fewer than 50 beds, as compared to 22 percent of U.S. short-stay hospitals (CY 1994).

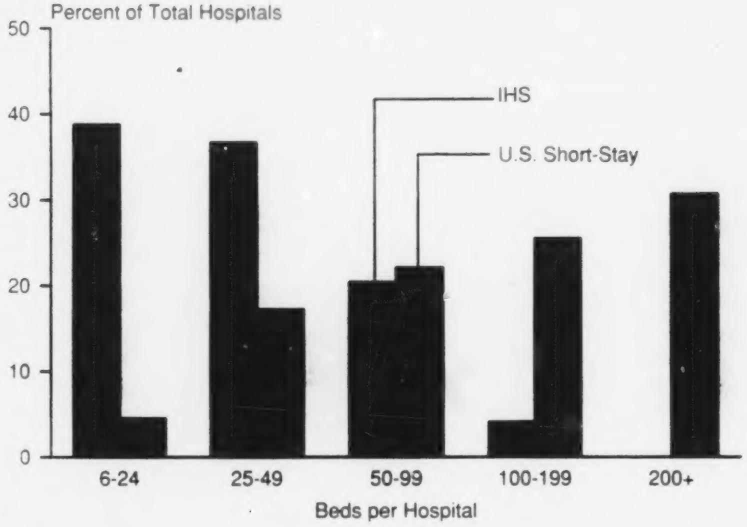

Table 5.18

Comparison of Indian Health Service and U.S. Hospitals by Bed Size

Indian Health Service and Tribal Hospitals, FY 1995 and U.S. General Short-Stay Hospitals, CY 1994

	Number of Hospitals		Percent of Total	
Bed Size	IHS [1]	U.S.	IHS	U.S.
All	49	5,229	100.0	100.0
6–24	19	235	38.8	4.5
25–49	18	900	36.7	17.2
50–99	10	1,157	20.4	22.1
100–199	2	1,331	4.1	25.5
200+	—	1,606	—	30.7

[1] Operated by IHS or the Tribes on September 30, 1994.

SOURCE: IHS—Monthly Report of Inpatient Services
U.S.—Hospital Statistics, 1995–96 Edition, American Hospital Association, Table 3A

Chart 5.19
Number of Ambulatory Medical Visits, IHS and Tribal Direct and Contract Facilities

Ambulatory medical visits to Indian Health Service and Tribal direct and contract facilities have increased 255 percent since FY 1970. In FY 1994, there were over 6.3 million visits.

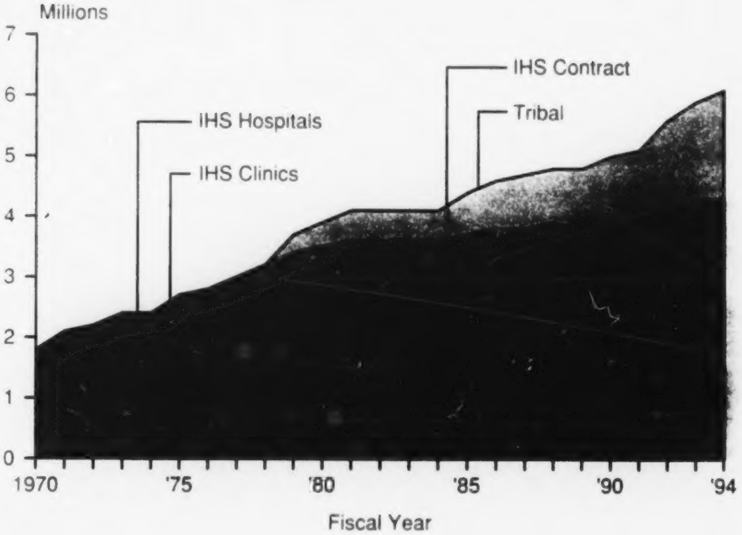

Table 5.19
Number of Ambulatory Medical Visits

Indian Health Service and Tribal Direct and Contract Facilities, Fiscal Years 1955-1995

		Indian Health Service Direct Facilities					
Fiscal Year	Grand Total	Total	Hospitals	Health Centers and Other Field Clinics	IHS Contract	Tribal Direct	Tribal Contract
1995	NA	4.156.146	2.750.617	1.405.529	NA	1.914.860	NA
1994	6.339.270	4.184.641	2.718.482	1.466.159	145.295	1.764.625	244.709
1993	5.976.290	4.084.118	2.672.476	1.411.642	169.625	1.582.748	139.799
1992	5.659.820	3.924.484	2.561.024	1.363.460	167.697	1.407.421	160.218
1991	5.211.351	3.762.580	2.481.726	1.280.854	154.488	1.126.685	167.598
1990	5.031.262	3.629.952	2.363.459	1.266.493	161.001	1.084.923	155.386
1989	4.955.078	3.614.390	2.323.010	1.291.380	207.156	999.128	134.404
1988	4.989.680	3.702.762	2.353.106	1.349.656	175.569	943.322	168.027
1987	4.806.027	3.600.697	2.278.291	1.322.406	203.040	858.018	144.272
1986	4.745.887	3.507.725	2.200.039	1.307.686	295.227	803.859	139.076
1985	4.432.054	3.389.618	2.088.973	1.300.645	275.457	667.651	[2] 99.328
1980	3.869.936	3.194.936	1.795.607	1.399.329	[1] 275.000	[1] 400.000	
1975		2.501.050	1.465.816	1.035.234			
1970		1.786.920	1.068.820	718.100			
1965		1.325.400	757.700	567.700			
1960		989.500	585.100	404.400			
1955		455.000	355.000	100.000			

[1] Estimate. Comparable data not available prior to FY 1980.

[2] Comparable Tribal contract health services data not available prior to FY 1985.

NOTE: NA denotes data not available.

SOURCE: IHS Direct: Annual Report 1A
IHS Contract: Annual Report 3G

Chart 5.20

Leading Causes of Ambulatory Medical Visits: Ages Under 1 Year, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages under 1 year was supplementary classification. This was followed by nervous system and sense organ diseases.

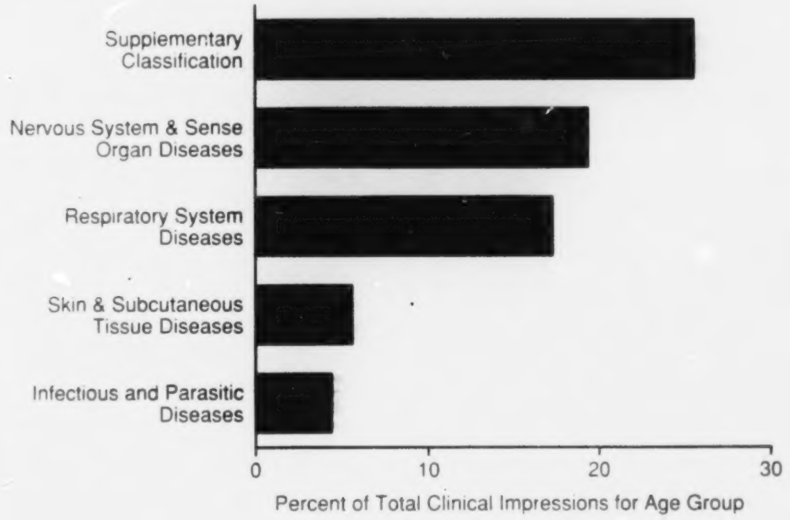

Table 5.20

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients Under 1 Year of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	413,349	216,070	197,279	100.0	52.3	47.7
				100.0	100.0	100.0
Supplementary classification	105,794	53,472	52,322	25.6	24.7	26.5
Nervous system & sense organ diseases	80,290	43,122	37,168	19.4	20.0	18.8
Respiratory system diseases	71,618	38,985	32,633	17.3	18.0	16.5
Skin and subcutaneous tissue diseases	22,964	11,720	11,244	5.6	5.4	5.7
Infectious and parasitic diseases	18,033	9,363	8,670	4.4	4.3	4.4
Symptoms, signs, & ill-defined conditions	16,380	8,701	7,679	4.0	4.0	3.9
Digestive system diseases	8,252	4,445	3,807	2.0	2.1	1.9
Perinatal period conditions	5,810	3,107	2,703	1.4	1.4	1.4
Injury and poisoning	4,028	2,196	1,832	1.0	1.0	0.9
Congenital anomalies	3,045	1,465	1,580	0.7	0.7	0.8
All other	77,135	39,494	37,641	18.7	18.3	19.1

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.21
Leading Causes of Ambulatory Medical Visits: Ages 1 to 4 Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 1 to 4 years was respiratory system diseases. This was followed by supplementary classification.

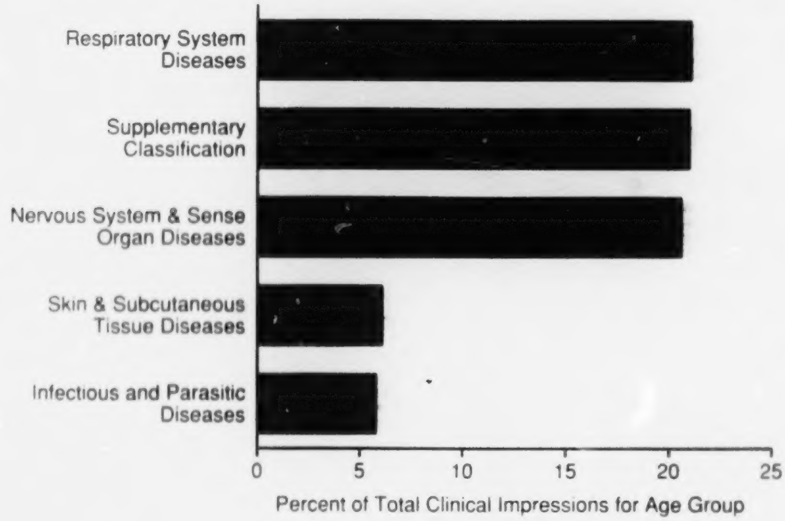

Table 5.21
Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 1 to 4 Years of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	784,658	402,846	381,812	100.0	51.3	48.7
				100.0	100.0	100.0
Respiratory system diseases	165,742	86,173	79,569	21.1	21.4	20.8
Supplementary classification	164,495	83,546	80,949	21.0	20.7	21.2
Nervous system & sense organ diseases	161,975	84,765	77,210	20.6	21.0	20.2
Skin and subcutaneous tissue diseases	47,886	23,814	24,072	6.1	5.9	6.3
Infectious and parasitic diseases	45,399	22,431	22,968	5.8	5.6	6.0
Symptoms, signs, & ill-defined conditions	31,875	16,274	15,601	4.1	4.0	4.1
Injury and poisoning	31,648	17,742	13,906	4.0	4.4	3.6
Digestive system diseases	13,073	6,548	6,525	1.7	1.6	1.7
Genitourinary system diseases	7,605	2,418	5,187	1.0	0.6	1.4
Blood and blood-forming organs diseases	5,129	2,718	2,411	0.7	0.7	0.6
All other	109,831	56,417	53,414	14.0	14.0	14.0

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.22

Leading Causes of Ambulatory Medical Visits: Ages 5 to 14 Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 5 to 14 years was supplementary classification. This was followed by respiratory system diseases.

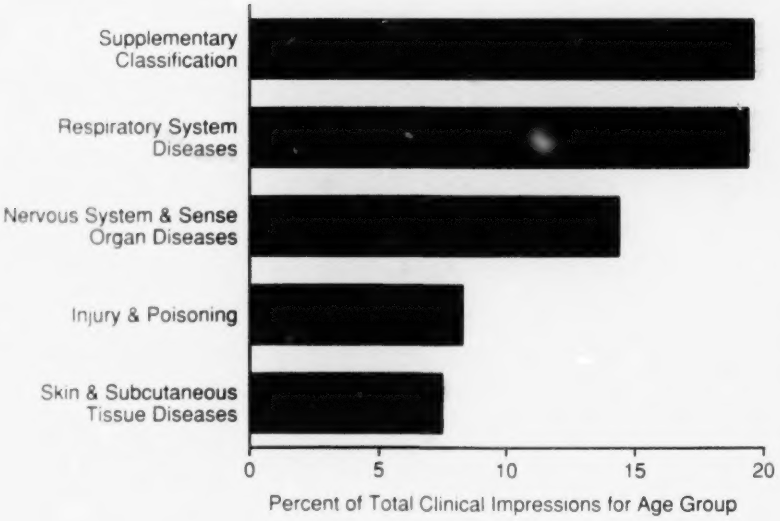

Table 5.22

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 5 to 14 Years of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1.002.912	497.366	505.546	100.0 100.0	49.6 100.0	50.4 100.0
Supplementary classification	196.543	100,487	96.056	19.6	20.2	19.0
Respiratory system diseases	194.506	94.082	100.424	19.4	18.9	19.9
Nervous system & sense organ diseases	144.026	68.680	75.346	14.4	13.8	14.9
Injury and poisoning	83.387	47.409	35.978	8.3	9.5	7.1
Skin and subcutaneous tissue diseases	75.607	37.558	38.049	7.5	7.6	7.5
Infectious and parasitic diseases	64.444	28,445	35.999	6.4	5.7	7.1
Symptoms, signs, & ill-defined conditions	47.052	22.173	24.879	4.7	4.5	4.9
Mental disorders	43.438	27.919	15.519	4.3	5.6	3.1
Musculoskeletal system diseases	18.573	9.006	9.567	1.9	1.8	1.9
Digestive system diseases	17.745	8.429	9.316	1.8	1.7	1.8
All other	117.591	53.178	64,413	11.7	10.7	12.7

SOURCE: Direct: Annual Report 1C

Contract: Annual Report 3A

Chart 5.23

Leading Causes of Ambulatory Medical Visits: Ages 15 to 24 Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 15 to 24 years was supplementary classification. This was followed by complications of pregnancy, childbirth, and the puerperium.

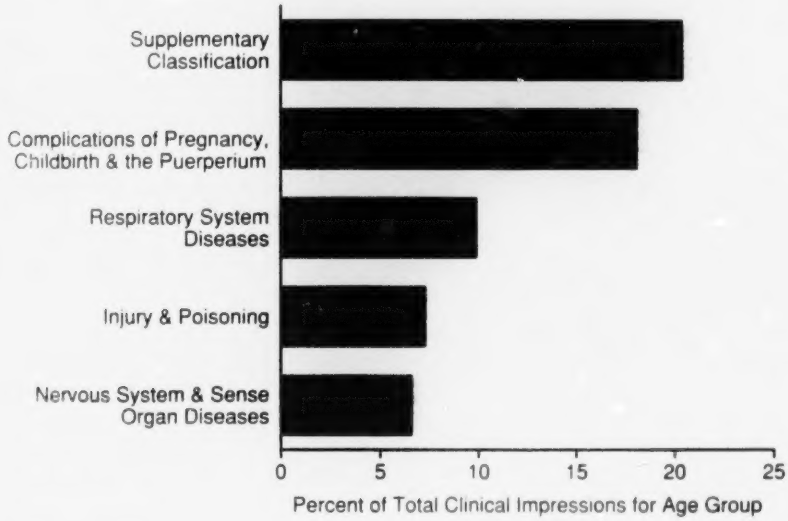

Table 5.23

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 15 to 24 Years of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

	Number of Clinical Impressions			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	1,119,374	330,622	788,752	100.0	29.5	70.5
				100.0	100.0	100.0
Supplementary classification	228,474	71,322	157,152	20.4	21.6	19.9
Complications of pregnancy, childbirth & the puerperium	202,095	443	201,652	18.1	0.1	25.6
Respiratory system diseases	111,032	40,495	70,537	9.9	12.2	8.9
Injury and poisoning	82,170	48,982	33,188	7.3	14.8	4.2
Nervous system & sense organ diseases	74,202	29,738	44,464	6.6	9.0	5.6
Skin and subcutaneous tissue diseases	59,228	25,974	33,254	5.3	7.9	4.2
Genitourinary system diseases	56,705	3,189	53,516	5.1	1.0	6.8
Mental disorders	48,859	21,804	27,055	4.4	6.6	3.4
Symptoms, signs, & ill-defined conditions	46,096	13,951	32,145	4.1	4.2	4.1
Musculoskeletal system diseases	37,032	16,519	20,513	3.3	5.0	2.6
All other	173,481	58,205	115,276	15.5	17.6	14.6

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.24

Leading Causes of Ambulatory Medical Visits: Ages 25 to 44 Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 25 to 44 years was supplementary classification. This was followed by respiratory system diseases.

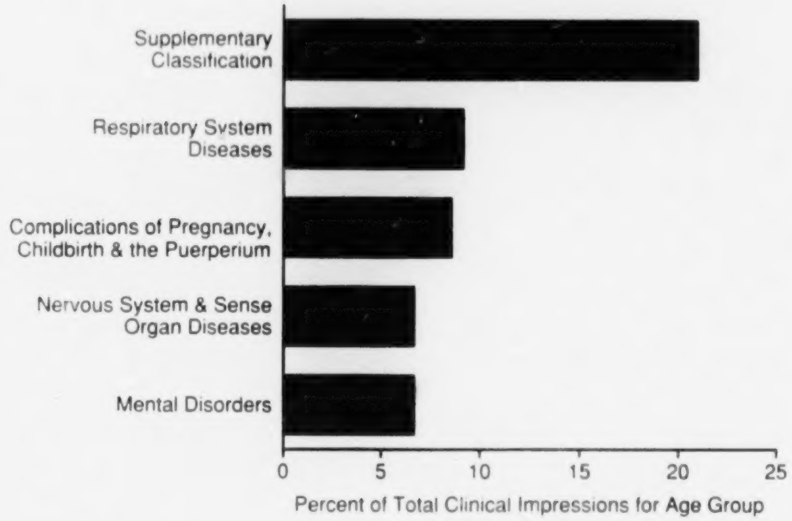

Table 5.24

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 25 to 44 Years of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	2,368,537	753,080	1,615,457	100.0	31.8	68.2
				100.0	100.0	100.0
Supplementary classification	498,016	158,582	339,434	21.0	21.1	21.0
Respiratory system diseases	218,882	65,432	153,450	9.2	8.7	9.5
Complications of pregnancy, childbirth & the puerperium	202,882	1,308	201,574	8.6	0.2	12.5
Nervous system & sense organ diseases	159,829	59,431	100,398	6.7	7.9	6.2
Mental disorders	159,580	64,179	95,401	6.7	8.5	5.9
Musculoskeletal system diseases	146,746	55,047	91,699	6.2	7.3	5.7
Genitourinary system diseases	124,155	11,294	112,861	5.2	1.5	7.0
Symptoms, signs, & ill-defined conditions	120,966	37,310	83,656	5.1	5.0	5.2
Endocrine, nutritional & metabolic disorders	106,105	40,112	65,993	4.5	5.3	4.1
Skin and subcutaneous tissue diseases	104,046	39,222	64,824	4.4	5.2	4.0
All other	527,330	221,163	306,167	22.3	29.4	19.0

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

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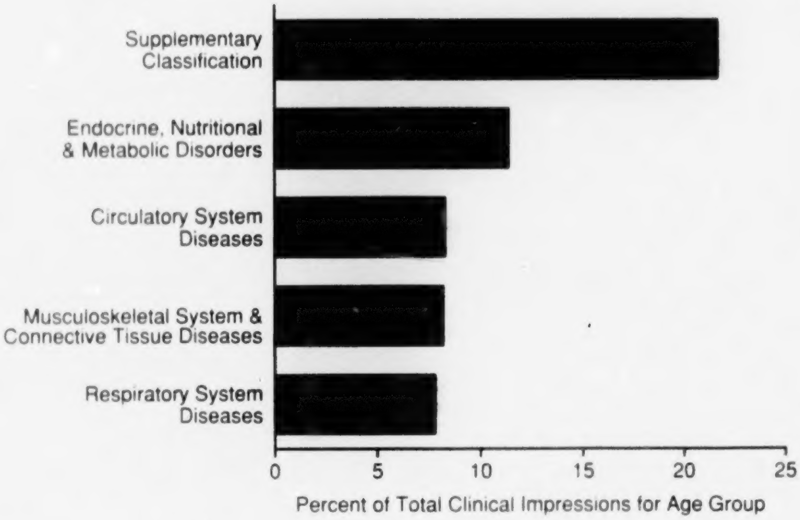
Chart 5.25

Leading Causes of Ambulatory Medical Visits: Ages 45 to 54 Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)



In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 45 to 54 years was supplementary classification. This was followed by endocrine, nutritional, and metabolic disorders.

Table 5.25

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 45 to 54 Years of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

	Number of Clinical Impressions			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	984.933	349.234	635.699	100.0	35.5	64.5
				100.0	100.0	100.0
Supplementary classification	213.894	74.269	139.625	21.7	21.3	22.0
Endocrine, nutritional and metabolic disorders	111.959	40.769	71.190	11.4	11.7	11.2
Circulatory system diseases	82.011	39.250	42.761	8.3	11.2	6.7
Musculoskeletal system diseases	80.962	26.192	54.770	8.2	7.5	8.6
Respiratory system diseases	76.731	22.594	54.137	7.8	6.5	8.5
Nervous system & sense organ diseases	69.320	26.419	42.901	7.0	7.6	6.7
Symptoms, signs, & ill-defined conditions	48.800	16.409	32.391	5.0	4.7	5.1
Genitourinary system diseases	46.106	7.929	38.177	4.7	2.3	6.0
Skin and subcutaneous tissue diseases	37.933	14.580	23.353	3.9	4.2	3.7
Digestive system diseases	33.701	13.675	20.026	3.4	3.9	3.2
All other	183.516	67.148	116.368	18.6	19.2	18.3

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.26
Leading Causes of Ambulatory Medical Visits: Ages 55 to 64 Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 55 to 64 years was supplementary classification. This was followed by endocrine, nutritional, and metabolic disorders.

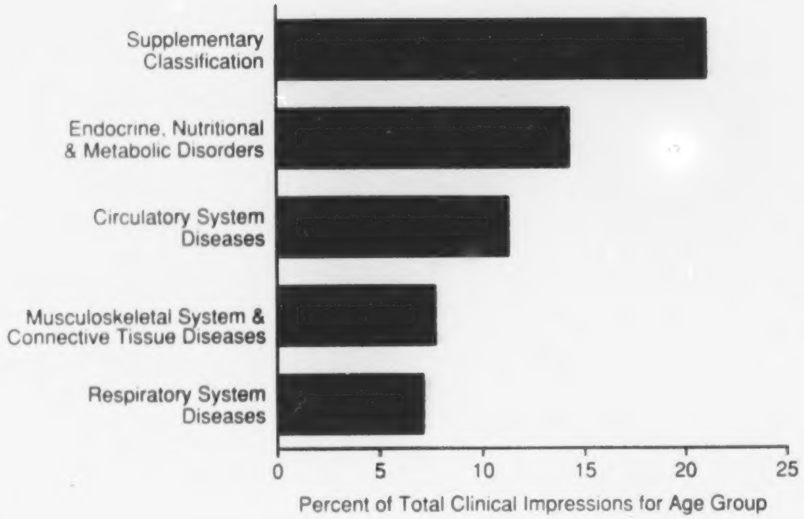


Table 5.26
Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 55 to 64 Years of Age

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

	Number of Clinical Impressions			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	814.572	301.331	513.241	100.0	37.0	63.0
				100.0	100.0	100.0
Supplementary classification	172,190	62,429	109,761	21.1	20.7	21.4
Endocrine, nutritional & metabolic disorders	116,100	40,181	75,919	14.3	13.3	14.8
Circulatory system diseases	91.813	42.586	49.227	11.3	14.1	9.6
Musculoskeletal system diseases	62,882	20,887	41,995	7.7	6.9	8.2
Respiratory system diseases	57,455	19.002	38.453	7.1	6.3	7.5
Nervous system & sense organ diseases	56,852	22,027	34.825	7.0	7.3	6.8
Symptoms, signs, & ill-defined conditions	37.366	13.604	23.762	4.6	4.5	4.6
Genitourinary system diseases	35,053	8,362	26,691	4.3	2.8	5.2
Skin and subcutaneous tissue diseases	29,281	11,678	17.603	3.6	3.9	3.4
Digestive system diseases	25,244	10,632	14.612	3.1	3.5	2.8
All other	130.336	49.943	80.393	16.0	16.6	15.7

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.27
Leading Causes of Ambulatory Medical Visits: Ages 65+ Years, Indian Health Service and Tribal Direct and Contract Facilities (FY 1994)

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 65 and over was supplementary classification. This was followed by circulatory system diseases.

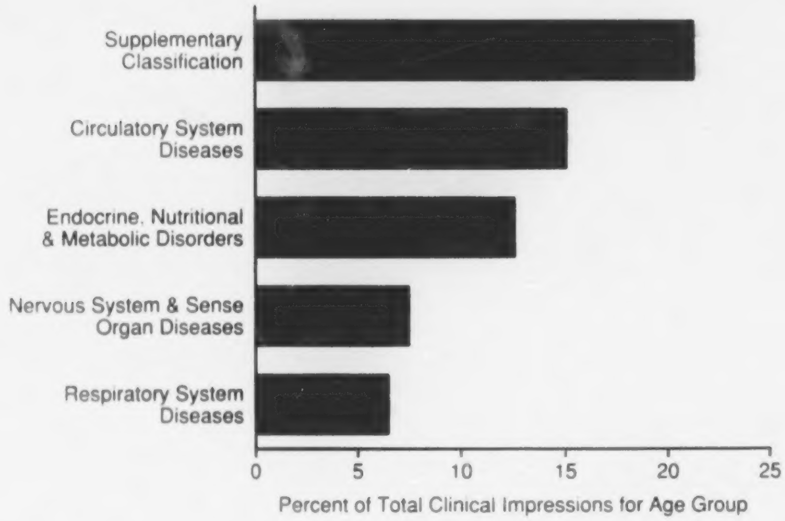


Table 5.27
Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 65 Years Old and Older

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

	Number of Clinical Impressions			Percent Distribution		
Diagnostic Category	Combined	Male	Female	Combined	Male	Female
All categories	923,348	355,796	567,552	100.0	38.5	61.5
				100.0	100.0	100.0
Supplementary classification	197,102	74,513	122,589	21.3	20.9	21.6
Circulatory system diseases	139,642	57,956	81,686	15.1	16.3	14.4
Endocrine, nutritional & metabolic disorders	116,635	40,922	75,713	12.6	11.5	13.3
Nervous system & sense organ diseases	69,516	28,698	40,818	7.5	8.1	7.2
Respiratory system diseases	60,351	25,059	35,292	6.5	7.0	6.2
Musculoskeletal system diseases	59,338	19,701	39,637	6.4	5.5	7.0
Symptoms, signs, & ill-defined conditions	43,912	17,142	26,770	4.8	4.8	4.7
Genitourinary system diseases	35,143	11,152	23,991	3.8	3.1	4.2
Skin and subcutaneous tissue diseases	31,387	13,072	18,315	3.4	3.7	3.2
Digestive system diseases	26,869	11,202	15,667	2.9	3.1	2.8
All other	143,453	56,379	87,074	15.5	15.8	15.3

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.28
Leading Causes of Ambulatory Medical Visits, Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

In FY 1994, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities was supplementary classification. This was followed by respiratory system diseases.

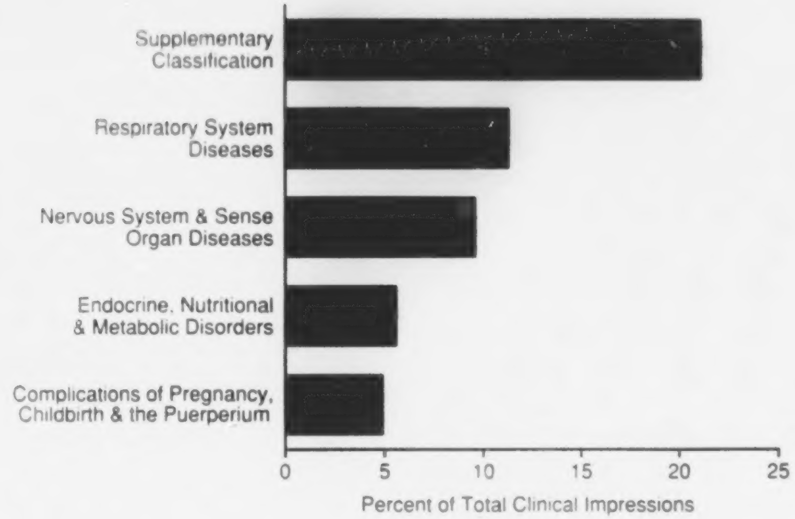


Table 5.28
Ten Leading Causes of Ambulatory Medical Clinical Impressions

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Direct	Contract	Combined	Direct	Contract
All categories	8,407,650	8,094,549	313,101	100.0	95.8	4.2
				100.0	100.0	100.0
Supplementary classification	1,776,359	1,746,413	29,946	21.1	21.5	9.5
Respiratory system diseases	955,927	922,646	33,281	11.3	11.3	10.6
Nervous system & sense organ diseases	815,542	781,118	34,424	9.6	9.5	10.8
Endocrine, nutritional & metabolic disorders	476,894	467,189	9,705	5.6	5.7	3.0
Complications of pregnancy, childbirth & the puerperium	419,885	413,112	6,773	4.9	5.1	2.1
Musculoskeletal system diseases	409,214	385,762	23,452	4.8	4.7	7.4
Skin and subcutaneous tissue diseases	408,158	396,921	11,237	4.8	4.9	3.5
Injury & poisoning	397,368	358,357	39,011	4.7	4.4	12.4
Circulatory system diseases	394,694	381,184	13,510	4.6	4.7	4.3
Symptoms, signs, & ill-defined conditions	392,085	367,494	24,591	4.6	4.5	7.8
All other	1,961,524	1,874,353	87,171	23.3	23.2	27.8

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

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Chart 5.29
Leading Causes of Ambulatory Medical Visits for Males, Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

For Indian males, the leading cause of ambulatory medical visits (FY 1994) in Indian Health Service and Tribal direct and contract facilities was supplementary classification. This was followed by respiratory system diseases.

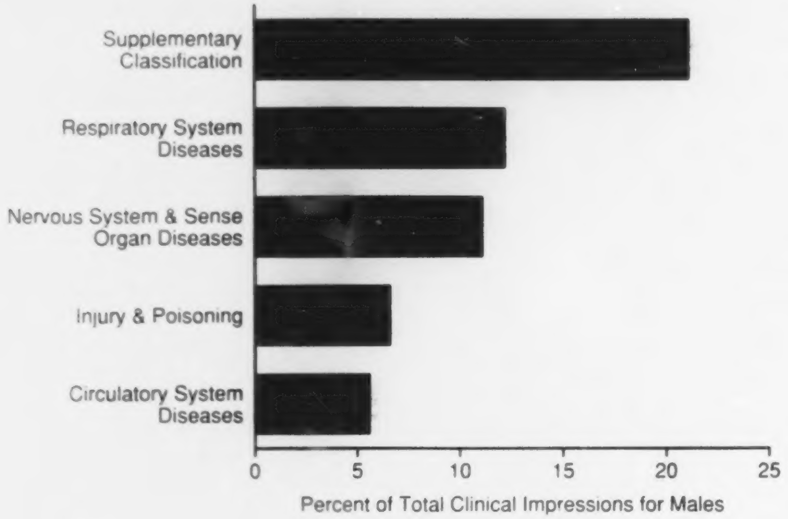

Chart 5.30
Leading Causes of Ambulatory Medical Visits for Females, Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

For Indian females, the leading cause of ambulatory medical visits (FY 1994) in Indian Health Service and Tribal direct and contract facilities was supplementary classification. This was followed by respiratory system diseases.

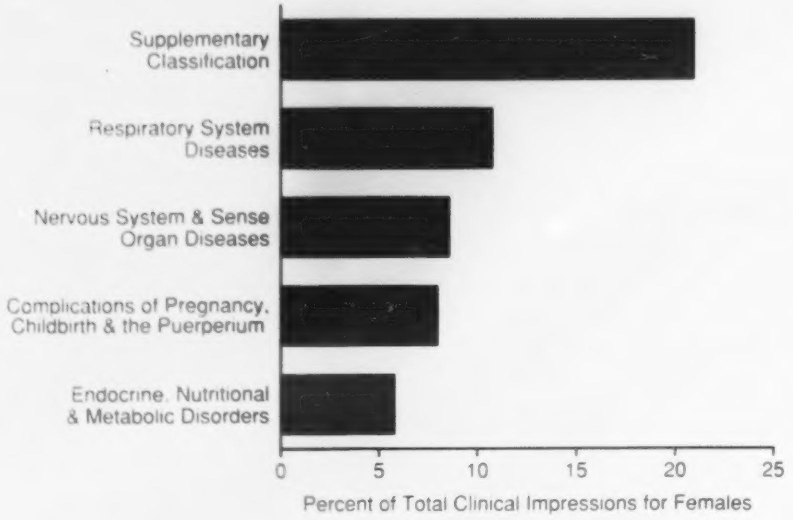

Table 5.29

Number of Ambulatory Medical Clinical Impressions for Leading Major Categories by Sex

Indian Health Service and Tribal Direct and Contract Facilities, FY 1994

Male		Female	
Category	Number of Clinical Impressions	Category	Number of Clinical Impressions
All categories	3,204,733	All categories	5,202,917
Supplementary classification	678,572	Supplementary classification	1,097,787
Respiratory system diseases	391,668	Respiratory system diseases	564,259
Nervous system & sense organ diseases	362,685	Nervous system & sense organ diseases	452,857
Injury and poisoning	213,751	Complication of pregnancy, childbirth & the puerperium	419,885
Circulatory system diseases	182,307	Endocrine, nutritional & metabolic disorders	304,753
Skin and subcutaneous tissue diseases	177,539	Genitourinary system diseases	271,582
Endocrine, nutritional and metabolic disorders	172,141	Musculoskeletal system diseases	259,977
Musculoskeletal system diseases	149,237	Symptoms, signs, & ill-defined conditions	246,669
Mental disorders	145,887	Skin and subcutaneous tissue diseases	230,619
Symptoms, signs, & ill-defined conditions	145,416	Circulatory system diseases	212,387
All other	585,530	All other	1,142,142

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.31

Percent Distributions for Population and Patient Care Workloads, FY 1994

Indian children under 1 year of age comprise 1.5 percent of the Indian Health Service user population but have 4.9 percent of the ambulatory medical clinical impressions, 5.9 percent of the inpatient discharges, and 5.0 percent of the inpatient days.

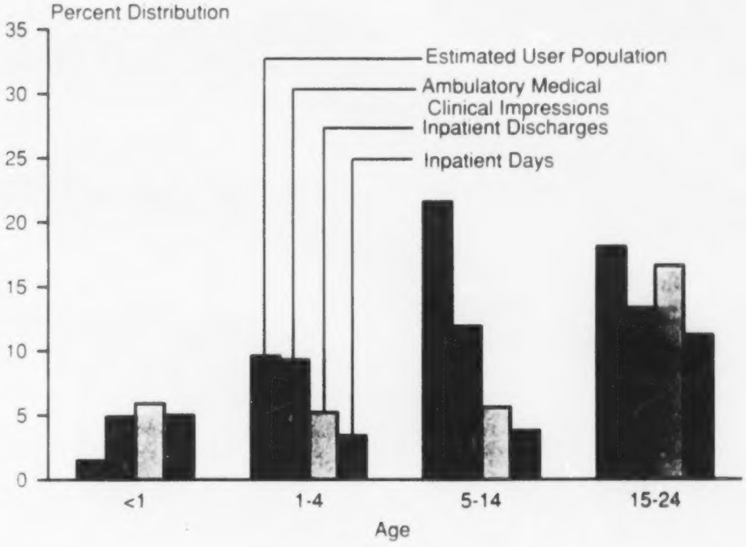

Chart 5.32
Percent Distributions for Population and Patient Care Workloads, FY 1994

Indian adults over age 64 comprise 6.1 percent of the Indian Health Service user population but have 11.0 percent of the ambulatory medical clinical impressions, 14.5 percent of the inpatient discharges, and 21.7 percent of the inpatient days.

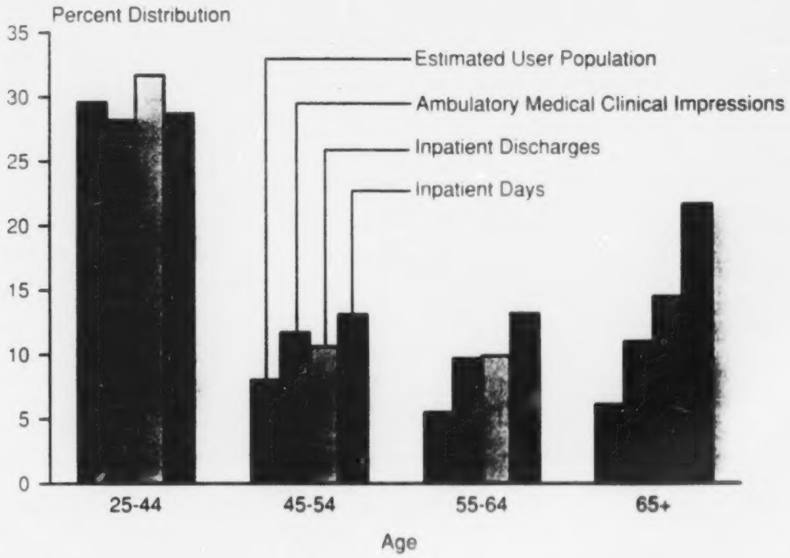

Table 5.31
Percent Distributions for Estimated Population, Ambulatory Medical Clinical Impressions, and Inpatient Discharges and Days, Fiscal Year 1994

	Age								
Distribution	All Ages	Under 1 Year	1–4 Years	5–14 Years	15–24 Years	25–44 Years	45–54 Years	55–64 Years	65 Years & Over
Estimated user population	100.0	1.5	9.6	21.6	18.1	29.6	8.0	5.5	6.1
Ambulatory medical clinical impressions	100.0	4.9	9.3	11.9	13.3	28.2	11.7	9.7	11.0
Inpatient discharges	100.0	5.9	5.2	5.6	16.6	31.7	10.6	9.9	14.5
Inpatient days	100.0	5.0	3.4	3.8	11.2	28.7	13.1	13.2	21.7

Chart 5.33
Percent Distribution of Ambulatory Medical Visits by Type of Provider, Indian Health Service and Tribal Direct Facilities, FY 1995

For 45 percent of ambulatory medical visits to Indian Health Service and Tribal facilities in FY 1995, the patient was seen by a physician. For 15 percent, the primary provider was a pharmacist.

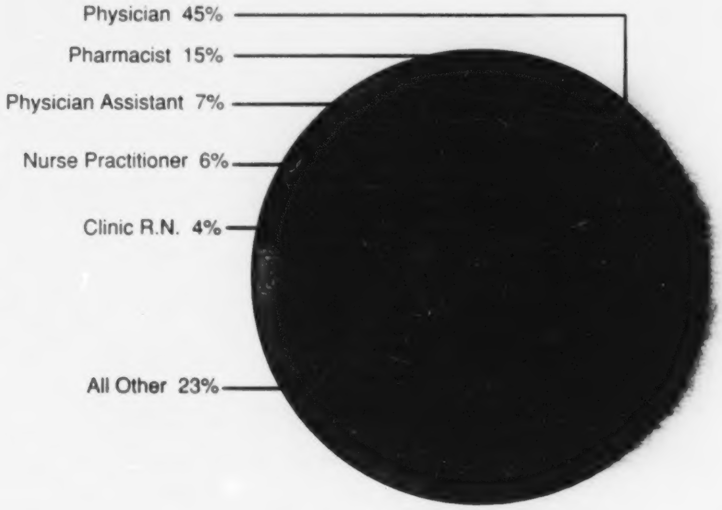

Table 5.33
Number of Ambulatory Medical Visits by Type of Provider

Indian Health Service and Tribal Direct Facilities, FY 1995

Type of Provider	Number of Ambulatory Medical Visits	Percent of Total
Total, All Providers	6,071,006	100.0
Primary Care Providers	3,855,812	63.5
Physician	2,738,520	45.1
Physician Assistant	441,996	7.3
Nurse Practitioner	355,622	5.9
Contract Physician	131,173	2.2
Tribal Physician	64,590	1.1
Nurse Midwife	55,642	0.9
All Other	68,269	1.1
Other Providers	2,215,194	36.5
Pharmacist	931,930	15.4
Clinic R.N.	254,685	4.2
Optometrist	182,429	3.0
Public Health Nurse	105,196	1.7
Licensed Practical Nurse	91,478	1.5
Mental Health Technician	65,649	1.1
All Other	583,827	9.6

SOURCE: APC Data System (Report 1A)

Chart 5.34
Trend in Average Daily Patient Load, IHS and Tribal Direct and Contract Hospitals

IHS services shifted away from inpatient care as demonstrated by the decline in average daily patient load (ADPL) between 1980 and 1994. However, the Tribal portion of total ADPL increased from 1 to 15 percent during that time period.

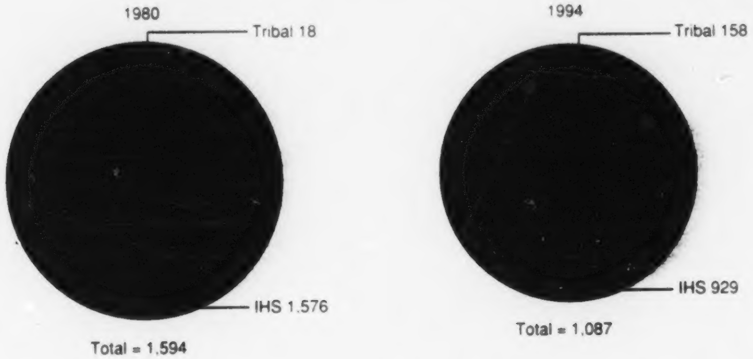

Chart 5.35
Trend in Number of Ambulatory Medical Visits, IHS and Tribal Direct and Contract Facilities

While inpatient services declined, ambulatory medical services increased 64 percent between 1980 and 1994. Also, the Tribal portion of total ambulatory medical visits increased from 8 to 32 percent during that time period.

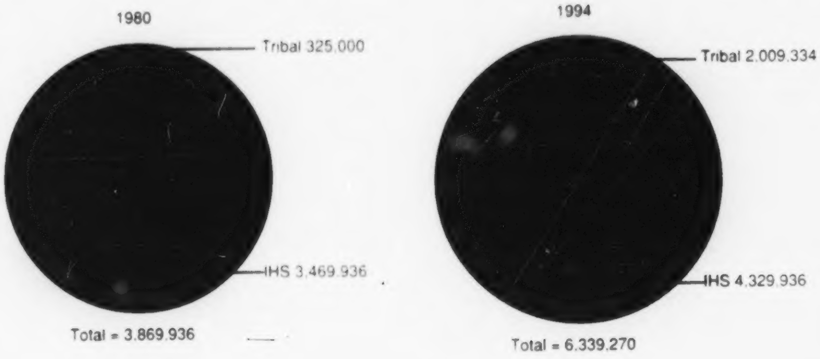

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Chart 5.36
Trend in Preventive Ambulatory Medical Visits, IHS and Tribal Direct and Contract Facilities

IHS services related to preventive care have increased 88 percent since 1980. In 1994, the largest single category of preventive clinical impressions was prenatal care, 20 percent of the preventive total. These are conservative estimates since preventive activities also occur during visits reported for other causes.

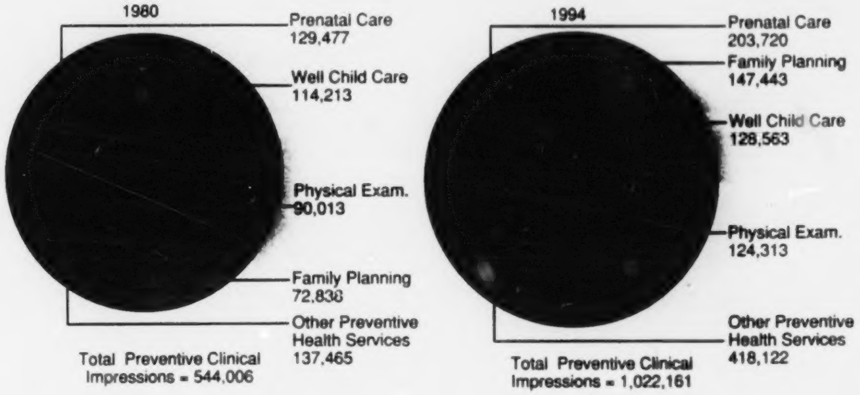

Chart 5.37
Dental Service Provided

The number of direct and contract dental services provided by Indian Health Service, Tribal, and Urban Programs has increased 331 percent since FY 1970. In FY 1995, nearly 3.2 million dental services were provided.

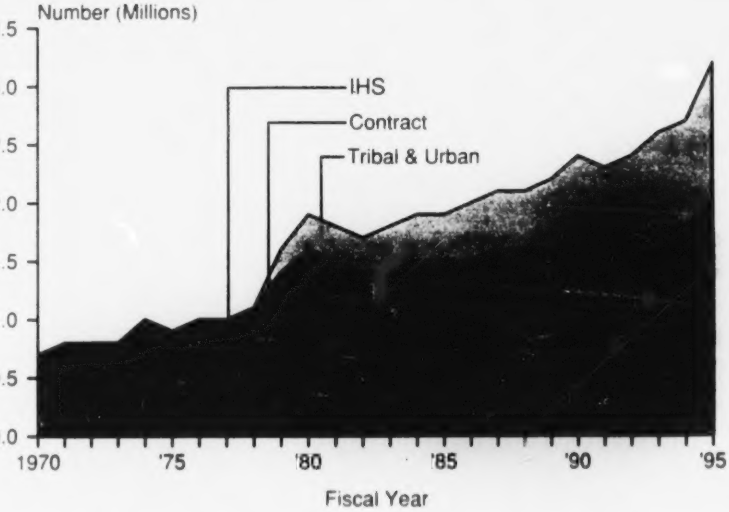

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Chart 5.38
Dental Service Provided by Tribal/Urban Programs

The number of dental services provided by Tribal and Urban Programs has increased 621 percent since FY 1979. In FY 1995, they comprised 37 percent of the total dental services provided, as compared to 10 percent in FY 1979.

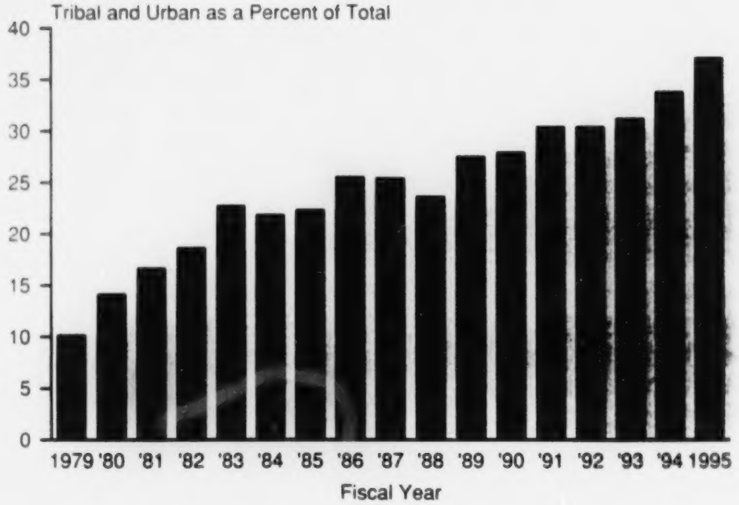

Table 5.37
Number of Dental Service Provided

IHS, Contract, Tribal and Urban Programs, FY 1955-1995

Fiscal Year	Number of Services Provided				% Contract of Total	% Tribal & Urban of Total	% Increase of Total Since 1955
	Total	IHS		Tribal & Urban			
		Direct	Contract[1]				
1995	3,178,069	1,931,180	69,128	1,177,761	2.2	37.1	1,665.6
1994	2,643,757	1,686,892	64,483	892,382	2.4	33.8	1,368.8
1993	2,675,525	1,742,936	97,897	834,692	3.7	31.2	1,386.4
1992	2,458,811	1,618,679	92,447	747,685	3.8	30.4	1,266.0
1991	2,369,484	1,516,233	133,253	719,998	5.6	30.4	1,216.4
1990	2,362,228	1,563,934	139,425	658,869	5.9	27.9	1,212.3
1989	2,207,082	1,466,812	132,918	607,352	6.0	27.5	1,126.2
1988	2,106,741	1,415,815	194,784	496,142	9.2	23.6	1,070.4
1987	2,130,690	1,397,262	191,639	541,789	9.0	25.4	1,083.7
1986	1,984,522	1,322,794	155,939	505,789	7.9	25.5	1,002.5
1985	1,914,820	1,276,623	210,508	427,689	11.0	22.3	963.8
1984	2,011,326	1,348,599	224,918	437,809	11.2	21.8	1,017.4
1983	1,907,336	1,325,187	149,741	432,408	7.9	22.7	959.6
1982	1,666,263	1,202,422	153,030	311,341	9.2	18.6	825.7
1981	1,801,982	1,319,913	182,880	299,189	10.1	16.6	901.1
1980	1,833,206	1,357,809	216,574	258,823	11.8	14.1	918.4
1979[2]	1,618,383	1,239,108	215,997	163,278	13.3	10.1	799.1
1978	1,099,019	885,019	214,000		19.5		510.6
1977	1,037,640	823,328	214,312		20.7		476.5
1976	975,647	798,709	176,938		18.1		442.0
1975	946,722	745,831	200,891		21.2		426.0
1974	927,701	775,747	151,954		16.4		415.4
1973	863,057	728,909	134,148		15.5		379.5
1972	844,724	718,176	126,548		15.0		369.3
1971	776,168	684,612	91,556		11.8		331.2
1970	737,206	646,580	90,626		12.3		309.6
1969	703,232	634,479	68,753		9.8		290.7
1968	681,745	613,084	68,661		10.1		278.7
1967	626,458	545,509	80,949		12.9		248.0
1966[2]	570,779	502,710	60,069		11.9		217.1
1965	572,079	495,006	77,073		13.5		217.8
1964	525,010	462,981	62,029		11.8		191.7
1963	453,906	398,452	55,454		12.2		152.2
1962	421,597	364,988	56,609		13.4		134.2
1961	403,528	348,776	54,752		13.6		124.2
1960[2]	364,423	307,248	57,175		15.7		102.5
1959	328,613	283,206	45,407		13.8		82.6
1958	282,372	282,372	—		—		56.9
1957	249,048	249,048	—		—		38.4
1956	219,353	219,353	—		—		21.9
1955	180,000	180,000	—		—		—

[1] Beginning with FY 1979 this category excludes contract services purchased from the private sector by Tribes.

[2] Data systems were modified in 1960, 1966 and 1978. In 1978 the IHS began to use the dental services coding list adopted by the American Dental Association (ADA). The ADA list identifies individual clinical services. Previously the IHS had reported specified clinical services combined into major dental service groupings. Excluded from the 1978 count are diagnostic and adjunctive services. Excluded from the clinical counts since 1979 are diagnostic services other than examinations, revisits and non-clinical adjunctive services.

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Chart 5.39
Trend in Community Water Systems Monitoring Fluoridation

Steady progress in maintaining at least minimally-acceptable levels of fluoride in community water systems has occurred since FY 1986. There are over 1,200 community water systems on reservations serving American Indian and Alaska Native people. In FY 1995, 469 water systems delivered fluoride for the entire year; of those systems, 277 were in compliance. A water system is considered to be in compliance for the year if the monthly water sample is in the optimal fluoride range. Optimally-fluoridated systems provide the dental benefits of this cost-effective public health measure to about 42 percent of the Indian population. Increasing the number of optimally-fluoridated water systems is a high priority for the IHS Dental and Office of Environmental Health and Engineering Programs.

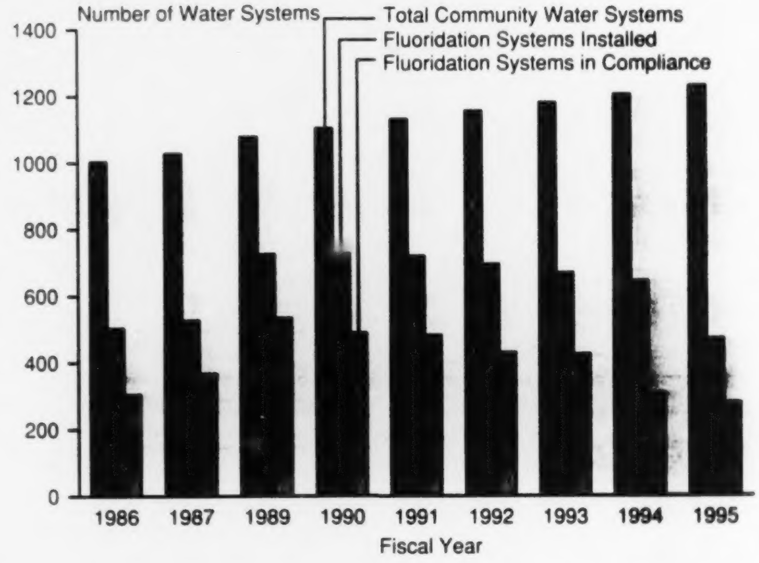
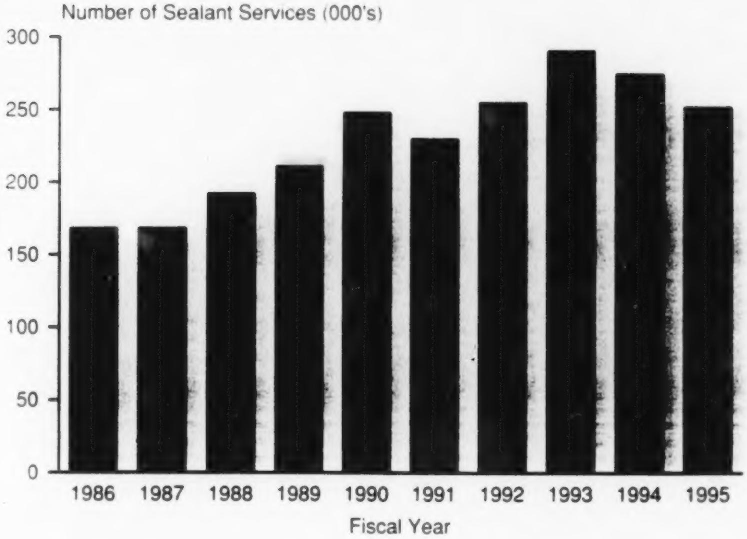


Chart 5.40

Annual Preventive Sealant Usage in IHS and Tribal Dental Programs, FY 1986-1995

Since FY 1986, there has been a dramatic increase in dental sealant usage. In FY 1986, there were about 168,000 sealant services while in FY 1995 there were nearly 252,000.



PART 6 - COMMUNITY HEALTH STATISTICS

Chart 6.1
Age-Adjusted Drug Related Death Rates

The age-adjusted drug related death rate for American Indians and Alaska Natives increased from 3.4 deaths per 100,000 population in 1979-1981 to 4.6 in 1991-1993. The U.S. All Races rate for 1992 was 4.3.

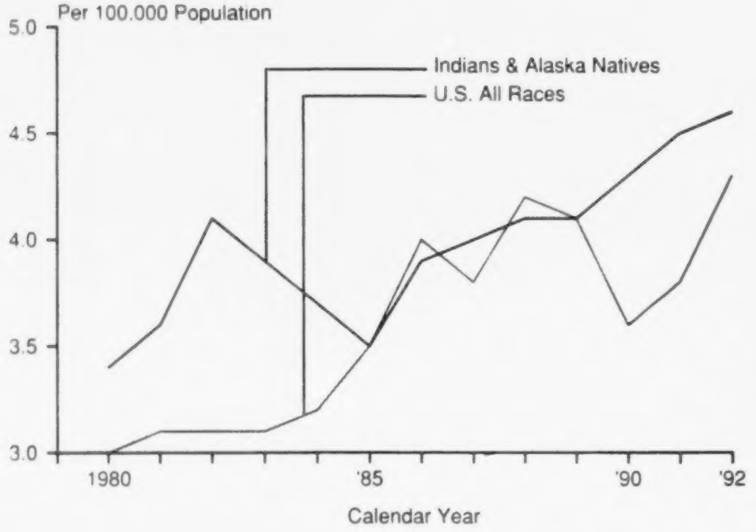


Table 6.1
Drug Related Deaths and Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1979-1993

Age-Adjusted Rate per 100,000 Population

Calendar Years(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	52						
1991–1993 (1992)	57	4.6	11,703	4.3	4.1	1.1	1.1
1990–1992 (1991)	50	4.5	10,388	3.8	3.6	1.2	1.3
1989–1991 (1990)	48	4.3	9,463	3.6	3.3	1.2	1.3
1988–1990 (1989)	45	4.1	10,710	4.1	3.7	1.0	1.1
1987–1989 (1988)	36	4.1	10,917	4.2	3.8	1.0	1.1
1986–1988 (1987)	45	4.0	9,796	3.8	3.4	1.1	1.2
1985–1987 (1986)	36	3.9	9,976	4.0	3.7	1.0	1.1
1984–1986 (1985)	34	3.5	8,663	3.5	3.3	1.0	1.1
1983–1985 (1984)	27	3.7	7,892	3.2	3.0	1.2	1.2
1982–1984 (1983)	40	3.9	7,492	3.1	3.0	1.3	1.3
1981–1983 (1982)	30	4.1	7,310	3.1	2.9	1.3	1.4
1980–1982 (1981)	28	3.6	7,106	3.1	2.9	1.2	1.2
1979–1981 (1980)	25	3.4	6,900	3.0	2.9	1.1	1.2
(1979)	27						

NOTE: Includes deaths caused by drug psychoses—292, drug dependence—304, nondependent abuse of drugs excluding alcohol and tobacco—305.2–305.9, accidental poisoning by drugs, medicinal substances and biologicals—E850–E858, suicide by drugs—E950.0–E950.5, assaults from poisoning by drugs and medicaments—E962.0, and injury by drugs—E980-E980.5. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single year specified.

Chart 6.2

Drug Related Death Rates by Age and Sex Indians and Alaska Natives (1991-1993)

The age-specific drug related death rate (1991-1993) for Indian males was highest for age group 35 to 44 years (12.9 deaths per 100,000 population). The highest age-specific rate for Indian females occurred in the age group 45 to 54 years (8.3).

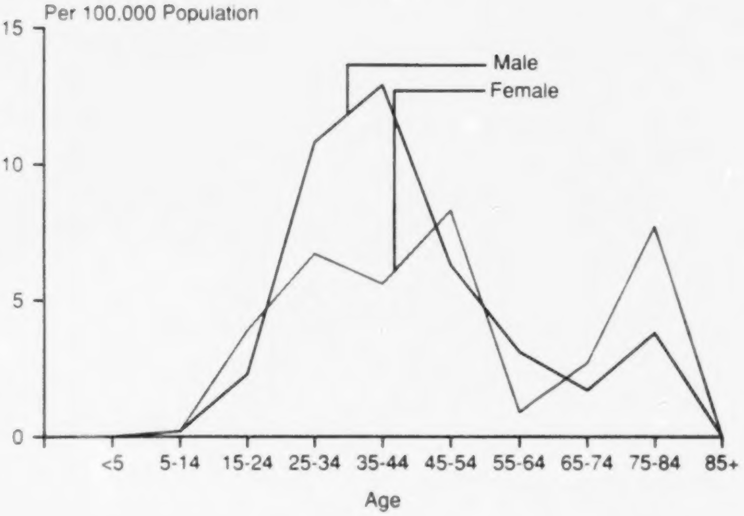


Table 6.2

Drug Related [1] Mortality Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1991-1993, and U.S. All Races and White Populations, 1992

Rate per 100,000 Population

	Indian and Alaska Native		
Age Group	Both Sexes	Male	Female
Under 5 years	—	—	—
5–14 years	0.2	0.2	0.2
15–24 years	3.1	2.3	3.9
25–34 years	8.7	10.8	6.7
35–44 years	9.1	12.9	5.6
45–54 years	7.3	6.3	8.3
55–64 years	1.9	3.1	0.9
65–74 years	2.2	1.7	2.7
75–84 years	6.1	3.8	7.7
85 years+	0.0	0.0	0.0

	U.S. All Races		
Age Group	Both Sexes	Male	Female
Under 5 years	0.2	0.3	0.2
5–14 years	0.1	0.1	0.1
15–24 years	2.2	2.9	1.6
25–34 years	7.6	10.9	4.2
35–44 years	10.8	16.0	5.7
45–54 years	5.8	7.3	4.4
55–64 years	3.2	3.4	3.0
65–74 years	2.7	2.5	2.8
75–84 years	3.4	3.7	3.2
85 years+	5.6	7.0	5.0

	U.S. White		
Age Group	Both Sexes	Male	Female
Under 5 years	0.2	0.2	0.1
5–14 years	0.1	0.1	0.1
15–24 years	2.3	2.9	1.6
25–34 years	7.3	10.6	4.0
35–44 years	9.9	14.6	5.2
45–54 years	5.3	6.1	4.6
55–64 years	3.2	3.1	3.3
65–74 years	2.7	2.4	2.9
75–84 years	3.4	3.7	3.3
85 years+	5.7	7.2	5.1

[1] Includes deaths with ICD-9 codes 292, 304, 305.2 to 305.9, E962.0, E850–E858, E950.0–E950.5, and E980.0–E980.5.

NOTE: — Represents zero. 0.0 Rounds to zero.

Chart 6.3
Alcohol-Related Discharge Rates (First-Listed Diagnosis)

In FY 1994, the total alcohol-related discharge rate (first diagnosis) for IHS and Tribal direct and contract general hospitals was 34.6 per 10,000 user population aged 15 years and older. This is 1.8 times the CY 1993 rate of 19.3 for U.S. general short-stay hospitals.

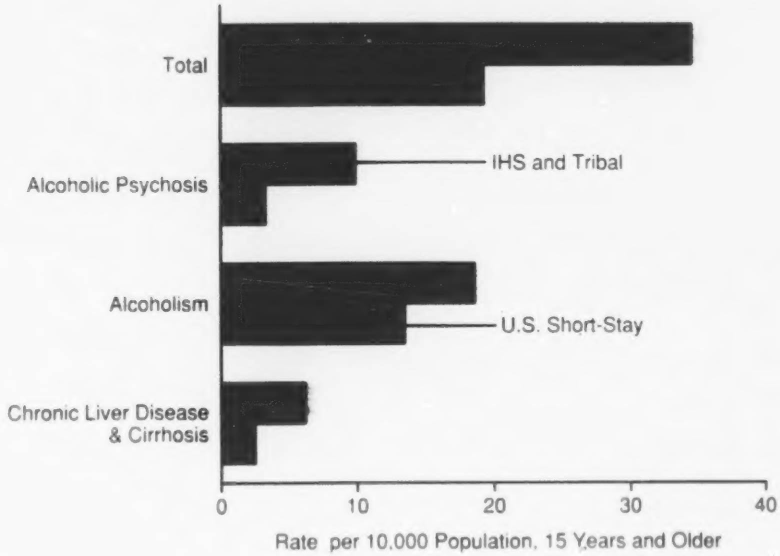


Table 6.3
Number and Rate for Discharges with a First-Listed Diagnosis of Alcoholism for Persons 15 Years Old and Older

IHS and Tribal Direct and Contract General Hospitals, FY 1994, and U.S. General Short-Stay Hospitals, CY 1993

	IHS and Tribal Hospitals		U.S. General Short-Stay Hospitals	
First Listed Diagnosis	Number	Rate	Number (thousands)	Rate
Total	2,768	34.6	386	19.3
Alcoholic psychosis (ICD-9-CM 291)	790	9.9	66	3.3
Alcoholism (ICD-9-CM 303, 305.0)	1,485	18.6	270	13.5
Chronic liver disease and cirrhosis, specified as alcoholic (ICD-9-CM 571.0–571.3)	493	6.2	50	2.5

NOTE: Rate is number of discharges per 10,000 user population aged 15 years and older.

SOURCE: U.S.—National Center for Health Statistics, DHHS, unpublished data.
IHS—Annual Reports 2C and 3I.

Chart 6.4
Hospitalizations for Injuries and Poisonings

Since FY 1987, the number of discharges for injuries and poisonings from IHS and Tribal direct and contract general hospitals has decreased 22 percent. In FY 1994, there were 8,503 discharges.

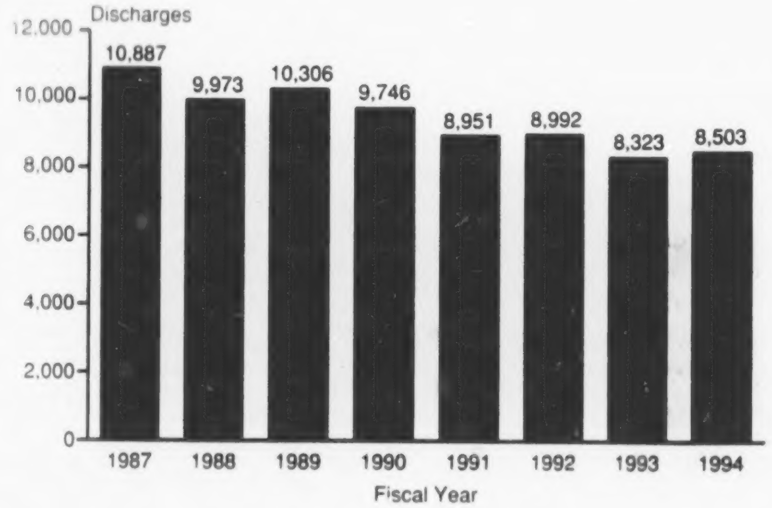


Chart 6.5
Age-Adjusted Motor Vehicle Death Rates for Males

The age-adjusted motor vehicle death rate for American Indian and Alaska Native males has decreased 57 percent since 1972-1974. In 1991-1993, the Indian male rate was 66.3 deaths per 100,000 population compared with 22.3 for U.S. All Races males, a ratio of 3.0 to 1.

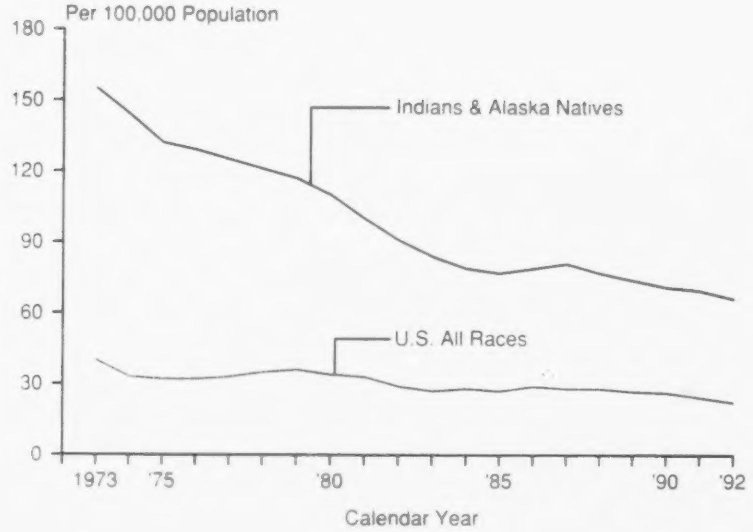


Table 6.5
Motor Vehicle Deaths and Mortality Rates for Males

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Years(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	367						
1991–93 (1992)	382	66.3	27,982	22.3	22.2	3.0	3.0
1990–92 (1991)	393	69.7	29,947	24.4	24.4	2.9	2.9
1989–91 (1990)	399	71.1	32,406	26.3	26.3	2.7	2.7
1988–90 (1989)	381	73.7	32,704	26.8	26.8	2.8	2.8
1987–89 (1988)	410	77.4	34,258	28.3	28.5	2.7	2.7
1986–88 (1987)	423	80.6	33,904	28.1	28.4	2.9	2.8
1985–87 (1986)	395	79.2	34,088	28.5	28.7	2.8	2.8
1984–86 (1985)	354	77.4	32,443	27.3	27.6	2.8	2.8
1983–85 (1984)	351	78.7	32,949	28.0	28.4	2.8	2.8
1982–84 (1983)	358	84.1	31,907	27.4	27.8	3.1	3.0
1981–83 (1982)	362	90.9	33,191	28.7	29.3	3.2	3.1
1980–82 (1981)	405	100.2	37,533	32.7	33.4	3.1	3.0
1979–81 (1980)	429	109.9	38,861	34.3	34.8	3.2	3.2
1978–80 (1979)	448	117.0	39,309	35.8	36.2	3.3	3.2
1977–79 (1978)	431	120.8	38,139	35.1	35.2	3.4	3.4
1976–78 (1977)	416	125.0	35,804	33.3	33.2	3.8	3.8
1975–77 (1976)	413	129.2	34,049	32.1	31.8	4.0	4.1
1974–76 (1975)	419	131.9	33,597	32.2	31.7	4.1	4.2
1973–75 (1974)	357	144.4	34,133	33.2	32.8	4.3	4.4
1972–74 (1973)	443	154.8	39,941	39.3	38.4	3.9	4.0
(1972)	399						
1954–56 (1955)	NA	NA	28,803	38.4	37.8	NA	NA

NOTE: NA denotes data not available.

Chart 6.6
Age-Adjusted Motor Vehicle Death Rates for Females

The age-adjusted motor vehicle death rate for American Indian and Alaska Native females has decreased 50 percent since 1972-1974. In 1991-1993, the Indian female rate was 3.0 times the rate for U.S. All Races females, 28.7 compared with 9.5 deaths per 100,000 population.

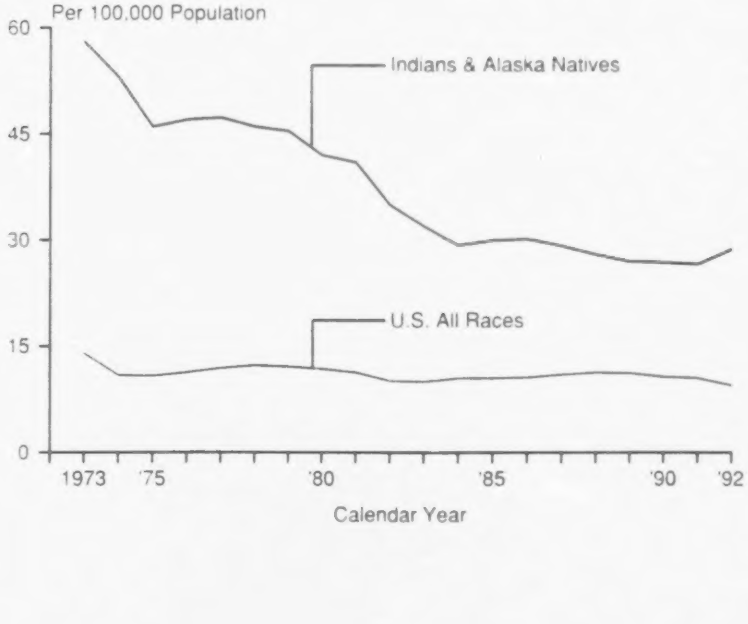


Table 6.6
Motor Vehicle Deaths and Mortality Rates for Females

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993

Age-Adjusted Rate per 100,000 Population

Calendar Years(s)	Indian and Alaska Native		U.S. All Races		U.S. White Rate	Ratio Indian to:	
	Number	Rate	Number	Rate		U.S. All Races	U.S. White
(1993)	201						
1991–1993 (1992)	156	28.7	13,000	9.5	9.6	3.0	3.0
1990–1992 (1991)	165	26.6	13,589	10.5	10.8	2.5	2.5
1989–1991 (1990)	149	26.9	14,408	10.7	11.0	2.5	2.4
1988–1990 (1989)	155	26.8	14,871	11.2	11.5	2.4	2.3
1987–1989 (1988)	155	27.7	14,820	11.3	11.6	2.5	2.4
1986–1988 (1987)	151	29.2	14,386	11.0	11.4	2.7	2.6
1985–1987 (1986)	171	30.2	13,777	10.6	11.0	2.8	2.7
1984–1986 (1985)	154	30.0	13,458	10.5	10.8	2.9	2.8
1983–1985 (1984)	134	29.3	13,314	10.5	10.9	2.8	2.7
1982–1984 (1983)	140	31.6	12,545	10.0	10.3	3.2	3.1
1981–1983 (1982)	168	35.1	12,588	10.1	10.5	3.5	3.3
1980–1982 (1981)	165	40.6	13,852	11.3	11.7	3.6	3.5
1979–1981 (1980)	193	42.0	14,311	11.8	12.3	3.6	3.4
1978–1980 (1979)	168	45.4	14,215	12.1	12.6	3.8	3.6
1977–1979 (1978)	175	46.0	14,272	12.3	12.6	3.7	3.7
1976–1978 (1977)	177	47.3	13,706	11.9	12.2	4.0	3.9
1975–1977 (1976)	156	47.0	12,989	11.3	11.5	4.2	4.1
1974–1976 (1975)	151	46.2	12,256	10.8	10.9	4.3	4.2
1973–1975 (1974)	138	53.0	12,269	10.9	11.0	4.9	4.8
1972–1974 (1973)	184	57.8	15,570	14.0	14.0	4.1	4.1
(1972)	158						
1954–1956 (1955)	NA	NA	9,623	11.6	11.4	NA	NA

NOTE: NA denotes data not available.

Chart 6.7
Indian Health Service Nutrition and Dietetics—Trend in Patient/Client Contacts by Nutrition Function

The number of patient/client contacts reported by the nutrition and dietetics program has decreased 39 percent since FY 1993. It is not clear what the trend is for actual workload. This is because program resources remained essentially the same during this period, but there was a decrease in the number of staff using the reporting system due to Self-Governance.

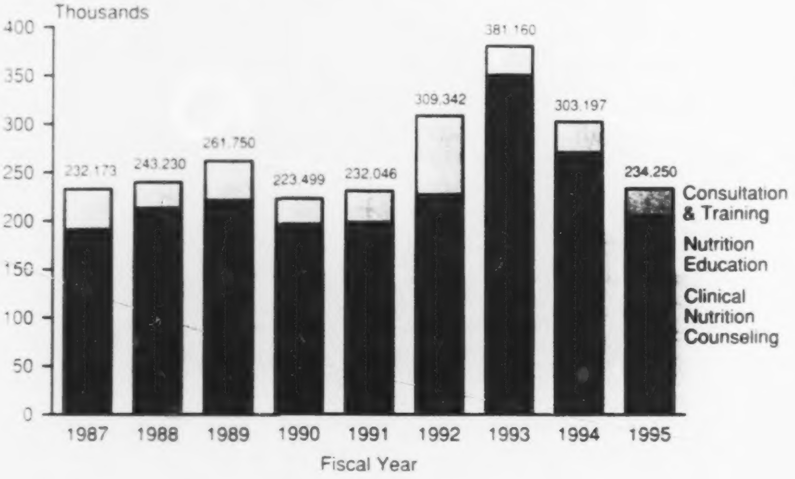


Chart 6.8
Indian Health Service Nutrition and Dietetics—Percent of Contacts by Setting, FY 1995

The Indian Health Service nutrition and dietetics program reported over 234,000 patient/client contacts during FY 1995. The majority of the contacts were in the hospital or ambulatory clinic (76 percent).

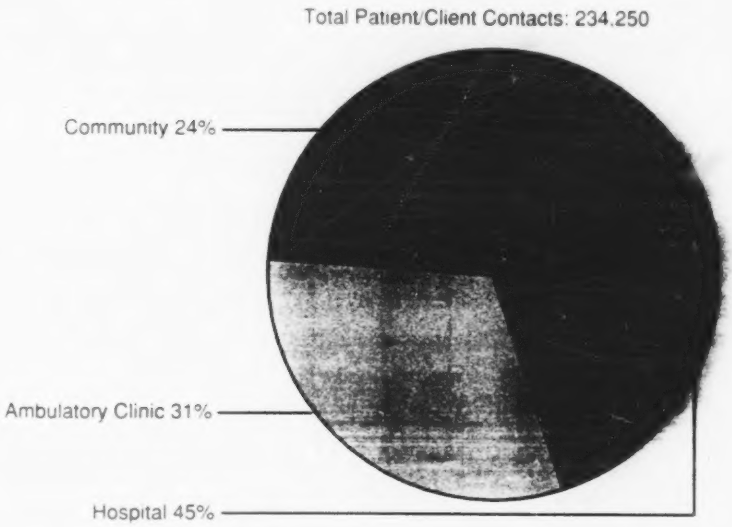


Chart 6.9
Indian Health Service Nutrition and Dietetics—Percent of Contacts by Nutrition Function, FY 1995

Nearly two-thirds (62 percent) of the nutrition and dietetics program contacts reported during FY 1995 were for clinical nutrition counseling and over one-quarter (26 percent) were for health promotion.

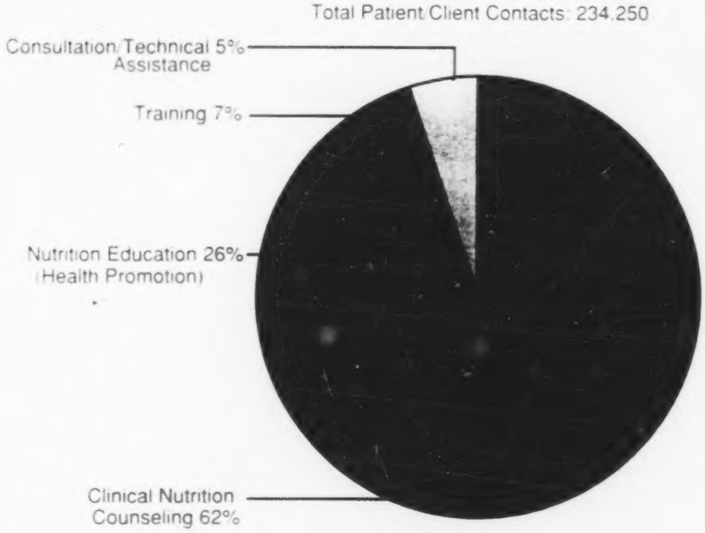


Table 6.8
Nutrition and Dietetics Patient/Client Contacts

By Setting and Function, FY 1995

	Patient/Client Contacts [1]	
	Number	Percent Distribution
Setting		
Total Patient/Client Contacts	234,250	100.0
Hospital	105,570	45.1
Ambulatory Clinic	72,550	31.0
Community	56,130	24.0
Nutrition Function		
Total Patient/Client Contacts	234,250	100.0
Clinical Nutrition Counseling	145,356	62.1
Nutrition Education/Health Promotion	60,172	25.7
Training for IHS and Tribal Staff	15,438	6.6
Consultation/Technical Assistance	13,284	5.7

[1] Excludes activities that are not direct patient/client services, and activities associated with program planning, administration, evaluation, and continuing education.

Chart 6.10
Leading Clinical Nutrition Patient/Client Contacts, FY 1995

Of the clinical nutrition counseling contacts reported by the nutrition and dietetics program in FY 1995, the majority were for general nutrition (45 percent) and diabetes (31 percent) nutrition counseling.

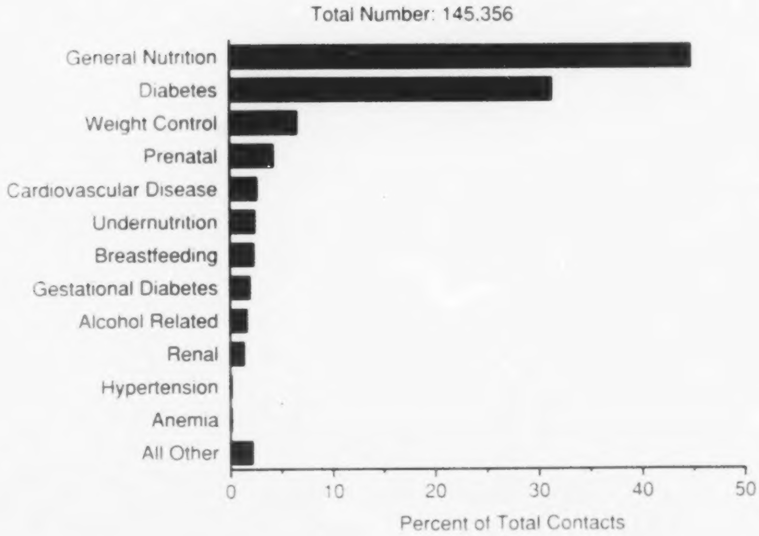


Table 6.10
Leading Clinical Nutrition Patient/Client Contacts, FY 1995

Purpose	Number	Percent Distribution
Total Contacts [1]	145,356	100.0
General Nutrition	65,098	44.8
Diabetes	45,527	31.3
Weight Control	9,400	6.5
Prenatal	6,132	4.2
Cardiovascular Disease	3,749	2.6
Undernutrition	3,498	2.4
Breastfeeding	3,372	2.3
Gestational Diabetes	2,699	1.9
Alcohol Related	2,289	1.6
Renal	1,857	1.3
Hypertension	918	0.1
Anemia	817	0.1
All Other	3,000	2.1

[1] Excludes activities that are not direct patient/client services, and activities associated with program planning, administration, evaluation, and continuing education.

NOTE: Percentages do not sum to 100.0 due to rounding.

Chart 6.11
Indian Health Service Public Health Nursing—Percent of Visits by Program Area, FY 1995

There were over 381,000 public health nursing visits recorded in the Headquarters reports for FY 1995. The most frequent program areas dealt with during these visits were health promotion/disease prevention (30 percent of the visits), morbidity (25 percent), and child health (11 percent).

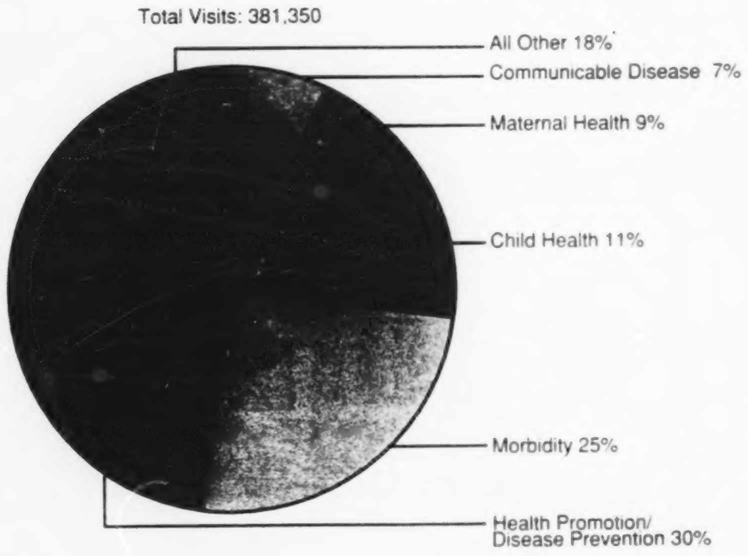


Table 6.11
IHS Public Health Nursing Visits by Program Area, FY 1995

Program Area	Number of Visits [1]	Percent Distribution
Total Visits	381,350	100.0
Health Promotion/Disease Prevention	115,079	30.2
Morbidity	93,820	24.6
Child Health	39,989	10.5
Maternal Health	33,621	8.8
Communicable Disease	28,086	7.4
School Health	8,424	2.2
Mental Health	8,043	2.1
Accidents/Trauma	4,239	1.1
General	50,049	13.1

[1] This is an induplicated count of visits. If a visit involves more than 1 family member seen at the same time for the same reason, it is counted as 1 visit.

SOURCE: Indian Health Service, Public Health Nursing Report No. 3, Fiscal Year 1995.

Chart 6.12
Indian Health Service Public Health Nursing—Percent of PHN Time by Type of Activity, FY 1995

56 percent of public health nursing time in FY 1995 was devoted to patient service in the home, while 27 percent was spent on patient service outside the home.

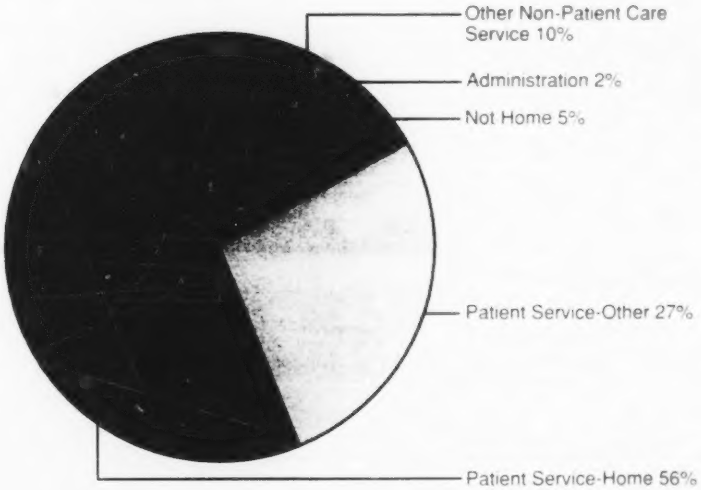
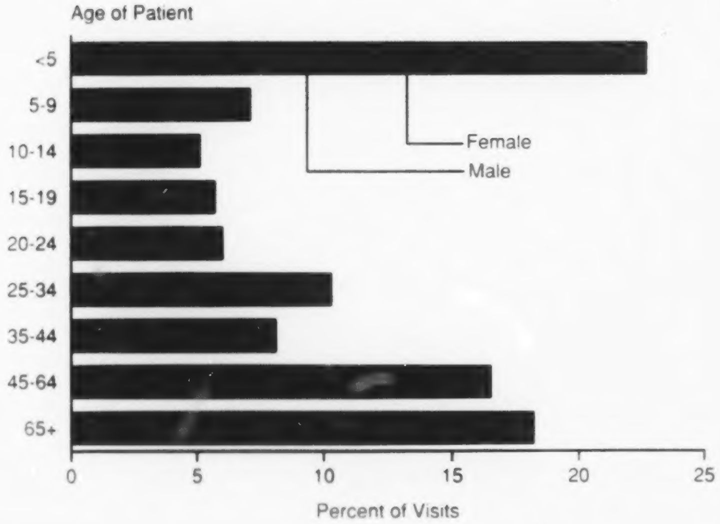


Table 6.12
IHS Public Health Nursing Time Worked by Type of Activity, FY 1995

Type of Activity	Number of Hours	Percent Distribution
Total Hours	253,658	100.0
Patient Service-Home	141,312	55.7
Patient Service-Other	69,442	27.4
Not Home	12,906	5.1
Administration	4,898	1.9
Register/Record Maintenance	3,357	1.3
Coordinating	3,185	1.3
Program Management	2,560	1.0
Education Received	2,338	0.9
Client Classes	1,652	0.7
Community Development	1,535	0.6
Education Provided	1,054	0.4
Technical Assistance Provided	931	0.4
School	763	0.3
Supervision Provided	218	0.1
Discharge Planning/Hospital Rounds	156	0.1
Supervision Received	139	0.1
Interpreting	121	0.0
Technical Assistance Received	87	0.0
Clinic	0	0.0
Other	7,004	2.8

NOTE: Percentages do not sum to 100.0 due to rounding.
SOURCE: Indian Health Service, Public Health Nursing Report No. 2, Fiscal Year 1995.

Chart 6.13
Indian Health Service Public Health Nursing—Patient Visits by Age and Sex, FY 1995



For the public health nursing program in FY 1995, female visits outnumbered male visits by over 60 percent. Twelve percent of all visits pertained to males under 5 years of age and 7 percent pertained to males aged 65 and over. The corresponding percentages for females were both 11.

Table 6.13
IHS Public Health Nursing Visits by Age and Sex of Patients, FY 1995

Age Group	Number of Visits [1]		Percent Distribution		Ratio Female to Male
	Male	Female	Male	Female	
All Ages	142,261	234,257	37.8	62.2	1.6
Under 5 years	43,386	41,995	11.5	11.2	1.0
5 to 9 years	13,317	13,390	3.5	3.6	1.0
10 to 14 years	9,474	9,792	2.5	2.6	1.0
15 to 19 years	4,357	16,864	1.2	4.5	3.9
20 to 24 years	3,550	19,389	0.9	5.1	5.5
25 to 34 years	8,792	30,210	2.3	8.0	3.4
35 to 44 years	9,771	20,791	2.6	5.5	2.1
45 to 64 years	23,774	38,578	6.3	10.2	1.6
65 years +	25,608	42,852	6.8	11.4	1.7
Unspecified Age	232	396	0.1	0.1	1.7

[1] The same visit is counted more than once if it involved more than 1 family member, e.g., 2 children in the same family, both for child health, but different ages and gender.

NOTE: Excludes 4,832 visits with gender not reported. Male percentages do not sum to 37.8 due to rounding.

SOURCE: Indian Health Service, Public Health Nursing Report No. 19, Fiscal Year 1995

Chart 6.14
Indian Health Service Public Health Nursing Visits by Age, FY 1995 Versus 1990 Census

22 percent of public health nursing visits in FY 1995 pertained to children under 5 years of age and 18 percent pertained to adults over the age of 64. Based on the 1990 Census, these 2 age groups comprised much smaller proportions of the Indian population—12 percent and 6 percent, respectively.

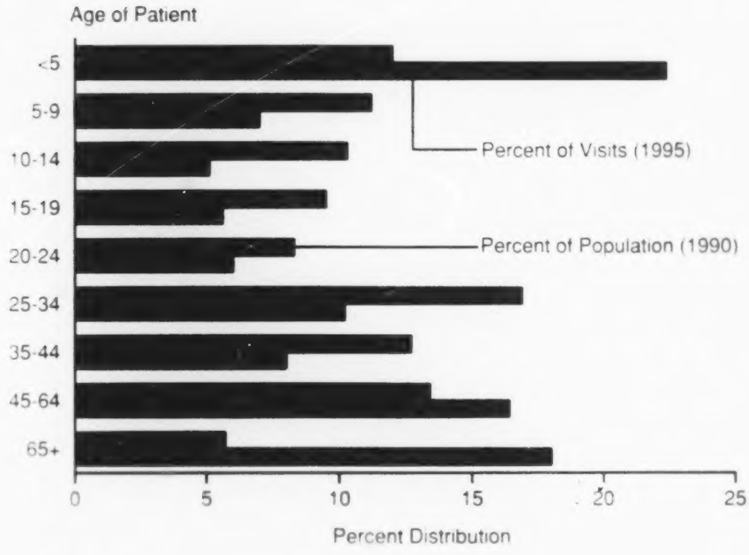


Table 6.14

IHS Public Health Nursing Visits by Age of Patients

FY 1995 Visits Compared with 1990 Census Data

Age Group	PHN Visits Number [1]	PHN Visits Percent Distribution	1990 Census Percent Distribution [2]	Ratio PHN Visit Distribution to 1990 Census
All Ages	381,350	100.0	100.0	
Under 5 years	85,508	22.4	12.0	1.9
5 to 9 years	26,715	7.0	11.2	0.6
10 to 14 years	19,273	5.1	10.3	0.5
15 to 19 years	21,250	5.6	9.5	0.6
20 to 24 years	22,967	6.0	8.3	0.7
25 to 34 years	39,056	10.2	16.9	0.6
35 to 44 years	30,584	8.0	12.7	0.6
45 to 64 years	62,410	16.4	13.4	1.2
65 years+	68,749	18.0	5.7	3.2
Unspecified Age	4,838	1.3	—	—

[1] The same visit is counted more than once if it involved more than 1 family member, e.g., 2 children in the same family, both for child health, but different ages and gender.

[2] Based on data contained in the 1990 Census modified age, race, and sex file for American Indians and Alaska Natives residing in the IHS service area using 1996 IHS service area boundaries.

SOURCE: Indian Health Service, Public Health Nursing Report No. 14, Fiscal Year 1995.

Chart 6.15

Distribution of CHR Client Contacts by Setting, FY 1995

The community health representatives (CHR) program reported over 3.6 million client contacts in FY 1995. Most of these contacts took place in the community (37 percent), followed by home (about 31 percent).

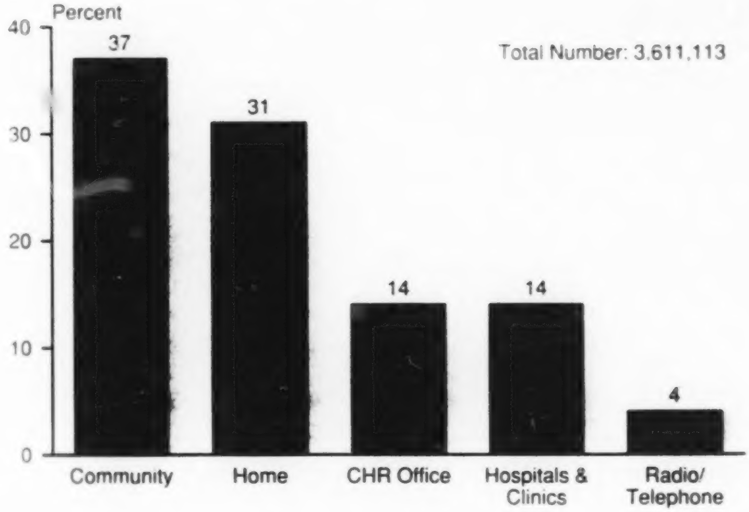


Table 6.15

Community Health Representative Client Contacts

By Setting, FY 1995

	Client Contacts	
	Number	Percent Distribution
Total Client Contacts [1]	[2] 3,611,113	100.0
Community	1,349,269	37.4
Home	1,099,785	30.5
CHR Office	510,173	14.1
Hospitals and Clinics	507,002	14.0
Radio/Telephone	134,216	3.7

[1] Estimated data based on CHR client contact reports completed during 12 sample reporting weeks during October 1, 1994 to September 30, 1995 and inflated to represent all weeks during Fiscal Year 1995.

[2] Total includes 10,668 client contacts (0.3 percent of total contacts) with setting not reported.

Chart 6.16
CHR Client Contacts—Trend in Leading Detailed Activities, FY 1991–1995

The two leading detailed activities for CHR contacts in FY 1995 were health education (22 percent) and case management (20 percent). In FY 1991, the top two were patient and medical supplies transportation (16 percent) and health education (15 percent).

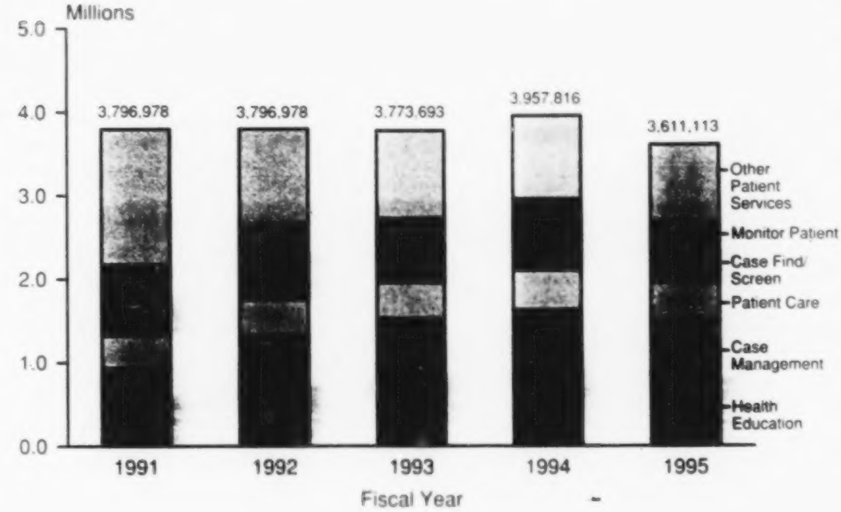


Table 6.16
Community Health Representative Client Contacts

By Leading Detailed Activities, FY 1991-1995

Detailed Activity	1991	1992	1993	1994	1995
Total Client Contacts [1]	3,796,978	[2] 3,773,693	[2] 4,139,300	[2] 3,957,816	[2] 3,611,113
			Percent Distribution		
Total Client Contacts [3]	100.0	100.0	100.0	100.0	100.0
Health Education	14.9	18.7	23.4	23.3	22.4
Case Management	9.7	16.4	17.0	17.9	20.3
Provide Patient Care	10.3	11.0	11.5	12.0	11.5
Case Finding and Screening	12.4	14.3	11.2	11.2	11.0
Monitor Patient	9.9	9.7	8.9	10.3	9.4
Transport Patient	[3] 16.2	12.2	10.5	8.9	8.6
Provide Environmental Services	8.5	5.7	5.4	4.7	5.9
Provide Homemaker Services	1.2	2.2	2.6	1.7	1.5
Interpret/Translate for Patient	2.6	1.1	1.2	0.9	1.0
Provide Emergency Care	0.5	0.6	0.5	0.8	0.4
Provide Other Patient Services [4]	[5] 13.8	8.1	7.8	8.3	8.0

[1] Estimated data based on CHR client contact reports completed during 12 sample reporting weeks between October 1 and September 30 and inflated to represent all weeks during each fiscal year.

[2] Total includes activity unspecified, not shown separately. Percent distribution based on number of client contacts with activity specified.

[3] Includes the delivery of medical supplies to patients in 1991.

[4] Includes client contacts with activity not reported.

[5] Includes the provision of patient clerical services in 1991.

NOTE: The reduction of CHR services from FY 1993 to FY 1994 reflects the transfer of resources to Tribes as part of the Self-Governance activity. Most Self-Governance Tribes elected not to use the national CHR program reporting system.

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Chart 6.17
Leading Health Problems for CHR Client Contacts, FY 1995

The two leading health problems for CHR contacts in FY 1995 were health promotion/disease prevention (23 percent) and diabetes (13 percent).

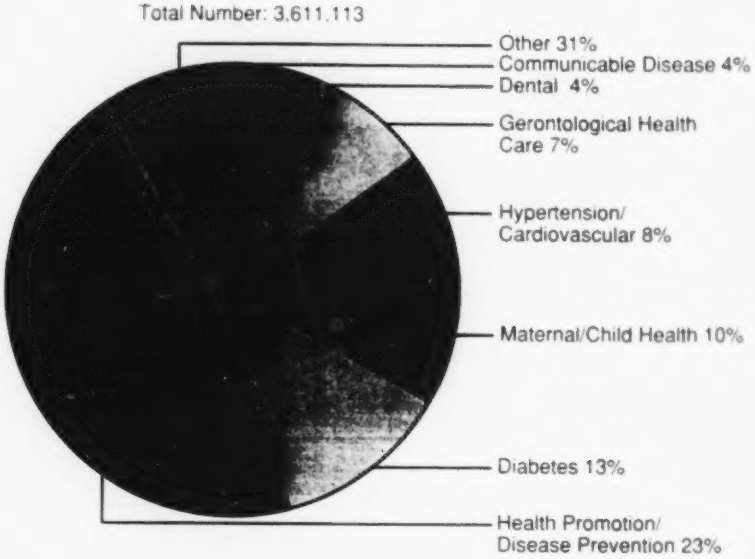

Table 6.17
Community Health Representative Client Contacts

By Leading Health Problems, FY 1995

Health Problem	Number	Percent Distribution
Total Client Contacts[2]	[1]3,611,113	100.0
Health Promotion/Disease Prevention	833,722	23.1
Diabetes	470,461	13.0
Maternal/Child Health	372,685	10.3
Hypertension/Cardiovascular Disease	291,774	8.1
Gerontological Health Care	254,794	7.1
Communicable Disease	143,751	4.0
Dental	124,875	3.5
Community Injury Control	117,361	3.2
Alcohol/Substance Abuse	64,098	1.8
Cancer	45,670	1.3
Mental Health	43,586	1.2
HIV/AIDS/ARC[3]	26,241	0.7
Other General Medical	660,479	18.3

[1] Estimated data based on CHR client contact reports completed during 12 sample reporting weeks between October 1, 1994 and September 30, 1995 and inflated to represent all weeks during Fiscal Year 1995.

[2] Total includes 161,616 client contacts (4.5 percent) with health problem not specified.

[3] Human immunodeficiency virus infection, Acquired immunodeficiency syndrome (AIDS) and AIDS-related condition.

Chart 6.18
Leading Types of CHR Incoming Client Referrals, FY 1995

The CHR program reported receiving nearly 1.0 million referrals in FY 1995. Family/self/community referrals comprised 37 percent of the total, while 23 percent came from fellow CHRs.

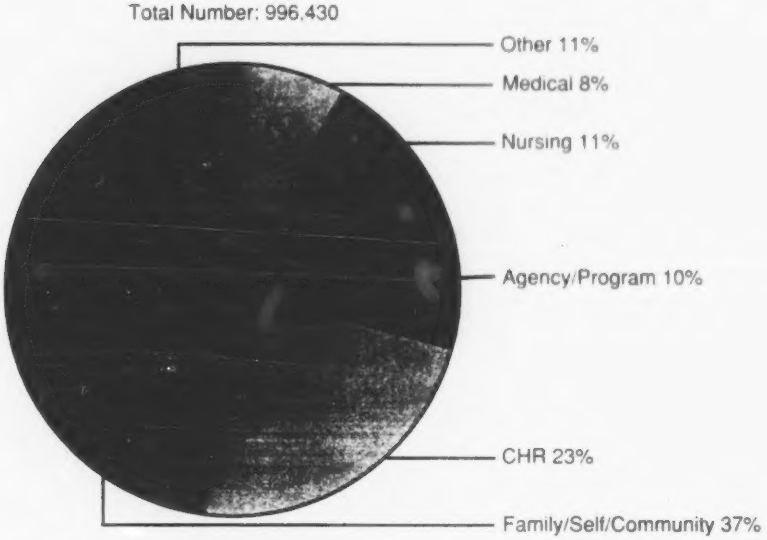

Chart 6.19
Leading Types of CHR Outgoing Client Referrals, FY 1995

The CHR program reported making over 776,000 referrals in FY 1995. CHR to CHR referrals made up 50 percent of outgoing CHR referrals, while family/self/community received 19 percent of these referrals, and medical professionals received 12 percent.

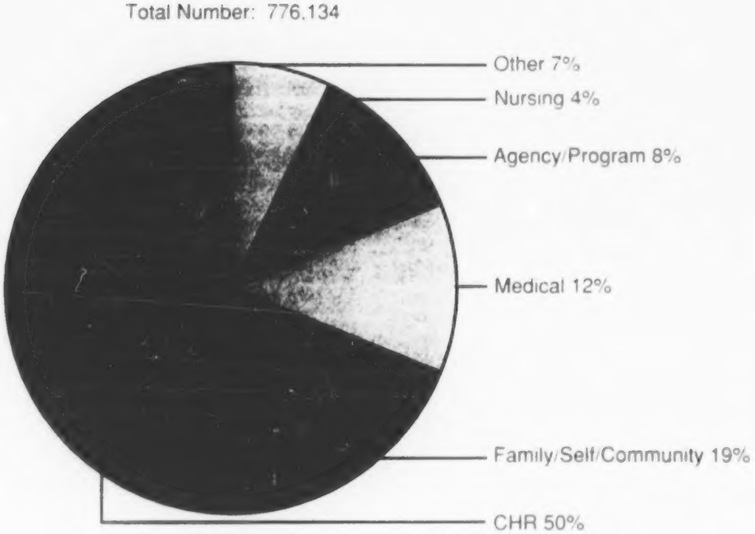

Chart 6.20
Types of Indian Homes Provided with Sanitation Facilities by Indian Health Service through 1995

Since 1960, over 206,000 Indian homes were funded by Indian Health Service for the provision of sanitation facilities.

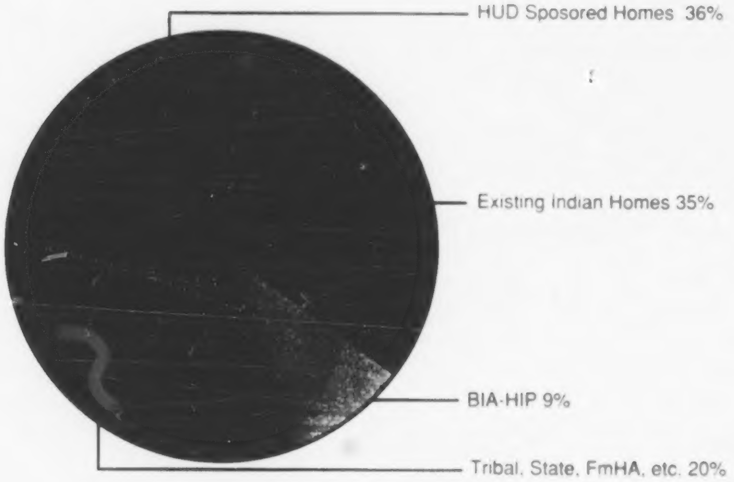

Table 6.20
Indian Homes Provided with Sanitation Facilities by IHS, FY 1960–1995

Fiscal Year	Total First Service	First Service and Upgrade	Existing First Service	HUD First Service	HIP First Service	Tribal and Other	Total Upgrade
Total	206.388	296.761	71.311	74.927	18.599	41.551	90.373
1995	6.650	11.608	1.735	1.680	488	2.747	4.958
1994	6.553	14.494	1.565	2.201	315	2.472	7,941
1993	6.443	14.153	1.705	1.476	403	2.859	7,710
1992	5.601	12.782	1.835	1.151	384	2,231	7,181
1991	7.843	12.509	1.807	2.273	832	2.931	4,666
1990	4.904	7.045	533	1.989	516	1.866	2,141
1989	7.352	10.703	1.727	1.810	660	3.155	3,351
1988	5.830	8.600	2.153	1.716	603	1.358	2.770
1987	4.987	6.200	134	3.024	377	1,452	1,213
1986	4.983	6.844	319	2.090	573	2,001	1,861
1985	3.996	7.641	132	1.774	510	1.580	3.645
1984	3.532	7.415	105	1.275	627	1.525	3,883
1983	4.985	10.038	1.870	1.053	1.250	812	5,053
1982	8.154	9.634	742	5.563	526	1,323	1,480
1981	6.210	9.082	679	3.912	496	1.123	2,872
1980	6.424	9.157	603	4.191	601	1.029	2,733
1979	6.809	8.202	1.166	3.691	658	1.294	1.393
1978	3.117	3.421	442	1.106	790	779	304
1977	14.017	21.878	5.777	4.919	1.412	1,909	7.861
1976	7.373	9.827	654	4.590	726	1.403	2,454
1975	5.899	8.370	1.520	2.419	839	1.121	2.471
1974	6.092	8.191	2.505	1.961	565	1.061	2.099
1973	7.601	9.168	2.626	3.349	1.066	560	1.567
1972	8.632	10.901	2.378	4.773	691	790	2.269
1971	5.101	6.847	863	2.961	726	551	1.746
1970	6.629	7.578	1.951	3.743	617	318	949
1969	6.294	7.087	3.974	1.416	445	459	793
1968	4.807	5.032	3.514	697	455	141	225
1967	3.953	5.051	3.042	616	114	181	1.098
1966	4.134	4.400	2.580	953	101	500	266
1965	4.036	4.689	3.625	340	71	0	653
1964	6.056	6.372	5.750	164	142	0	316
1963	5.323	5.733	5.293	0	20	10	410
1962	3.408	3.413	3.357	51	0	0	5
1961	2.600	2.636	2.590	0	0	10	36
1960	60	60	60	0	0	0	0

NOTE: Data for the later years represent estimates of services to be provided.

Chart 6.21

Contributions to Indian Health Service Sanitation Facilities Projects (1995)

Contributions to Indian Health Service sanitation facilities projects are received from numerous sources. In FY 1995, 37 percent of the contributions were associated with the DHUD infrastructure category. Tribes contributed 26 percent of the funds for these cooperative projects, followed closely by local governments with 25 percent.

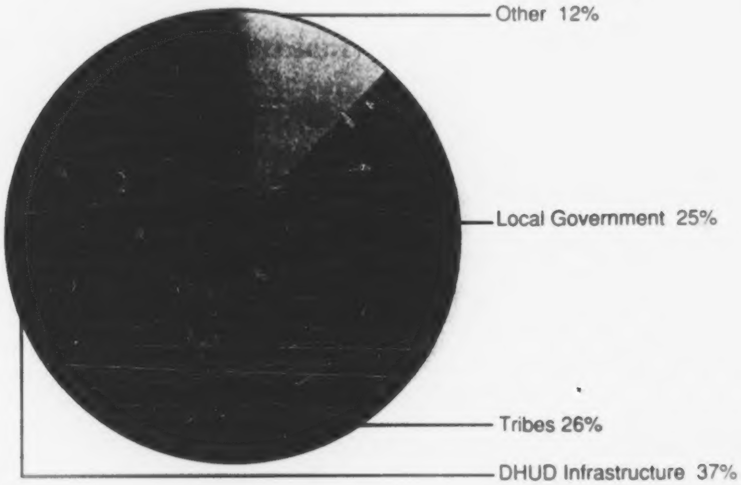

Table 6.21

P.L. 86–121 Program

Summary of Cash Contributions Received in FY 1995 by Contributor

Contributor	Contributions	Percent
Total	$36,292,659	100.0
Department of Housing and Urban Development (DHUD) Infrastructure	13,306,629	36.7
Tribes[1]	9,348,229	25.8
Local Government	9,227,955	25.3
Housing Authorities	2,087,906	5.8
Navajo-Hopi Indian Relocation Commission (NHIRC)	2,020,940	5.6
State Government	301,000	0.8
Nonprofit Organizations	0	0.0
Individuals	0	0.0
Businesses	0	0.0

[1] Includes EPA and DHUD Community Development Block Grant funds that were contributed by Tribes.

Chart 6.22
Sanitation Facilities Deficiencies FY 1996—Costs

The FY 1996 sanitation facility deficiency of $630 million to serve existing American Indian and Alaska Native homes and communities represents the cost to provide first service sanitation facilities, to upgrade existing facilities, to provide solid waste facilities, and to provide assistance to operation and maintenance organizations.

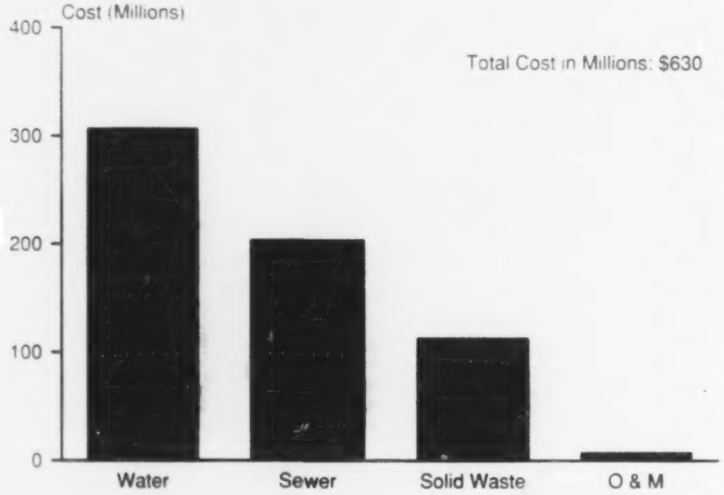

Chart 6.23
Sanitation Facilities Deficiencies FY 1996—Units

The sanitation facility deficiency for American Indian and Alaska Native homes and communities is categorized into requirements for water, sewer, assistance to establish and equip organizations to operate and maintain the facilities, and solid waste disposal systems. Units are the total number of homes.

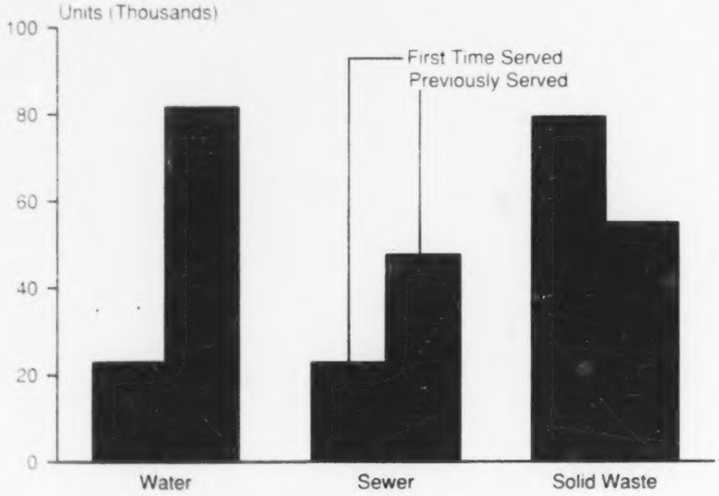

Table 6.22
Sanitation Facilities

Deficiency Summary (FY 1996)

Total Deficiency, $629,552,559 [1]

	Water		Sewer		Solid Waste		Operation and Maintenance	
	Units	Cost (thousands)	Units	Cost (thousands)	Units	Cost (thousands)	Units	Cost (thousands)
Total	104,551	$306,308	70,511	$203,272	134,545	$112,745	44,247	$7,226
1st Service	22,910		22,806		79,508			
Previous Service	81,641		47,705		55,037			

[1] Cost estimates are for projects in current IHS funding plan. Additional projects totaling approximately $898 million, mostly for the provision of piped water and sewer to 2–5 percent of existing American Indian and Alaska Native homes and communities, are not considered economically feasible at this time.

Chart 6.24
Indian Health Service Health Education—Percent of Provider Hours by Location, FY 1995

Health education providers spent the majority of their time in the office (57 percent of total provider hours) followed by hospital/clinic (12 percent) and Tribal worksite (11 percent).

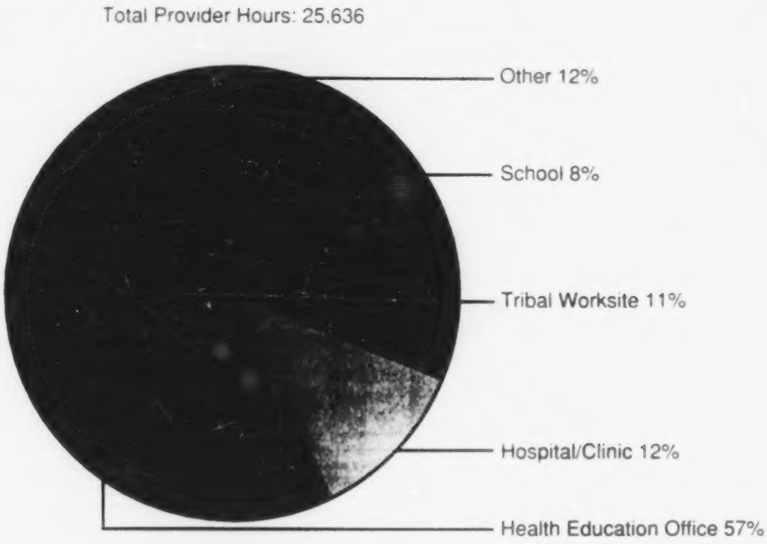

Table 6.24
IHS Health Education Provider Hours by Location, FY 1995

Location	Number of Hours	Percent Distribution
Total Hours	25,636	100.0
Health Education Office	14,695	57.3
Hospital/Clinic	3,023	11.8
Tribal Worksite	2,774	10.8
School	1,964	7.7
Recreation Center	226	0.9
Home	66	0.3
Roadside	46	0.2
Other	2,842	11.1

NOTE: Percentages do not sum to 100.0 due to rounding.

Chart 6.25
Indian Health Service Health Education—Percent of Clients Served by Location, FY 1995

Thirty-four percent of health education clients were served at a school location and 29 percent at a Tribal worksite. Another quarter of the clients were either seen in the health education office (16 percent) or the hospital/clinic (9 percent).

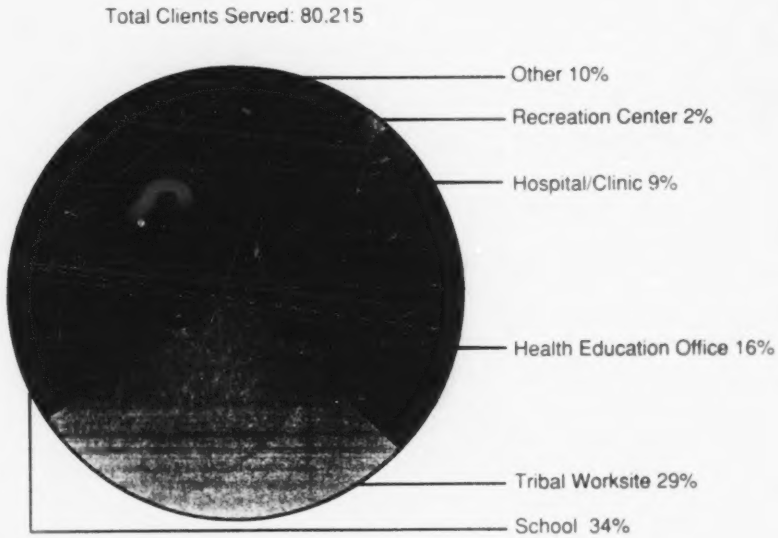

Table 6.25
Health Education Clients Served by Location, FY 1995

Location	Number of Clients	Percent Distribution
Total Clients	80,215	100.0
School	27,138	33.8
Tribal Worksite	22,915	28.6
Health Education Office	12,958	16.2
Hospital/Clinic	7,431	9.3
Recreation Center	1,698	2.1
Roadside	194	0.2
Home	79	0.1
Other	7,802	9.7

Chart 6.26
Indian Health Service Health Education—Percent of Provider Hours by Task Function, FY 1995

Health education providers devoted 33 percent of their time to support services and 25 percent to design education objectives/materials. The next most common function was implementing/teaching at 20 percent.

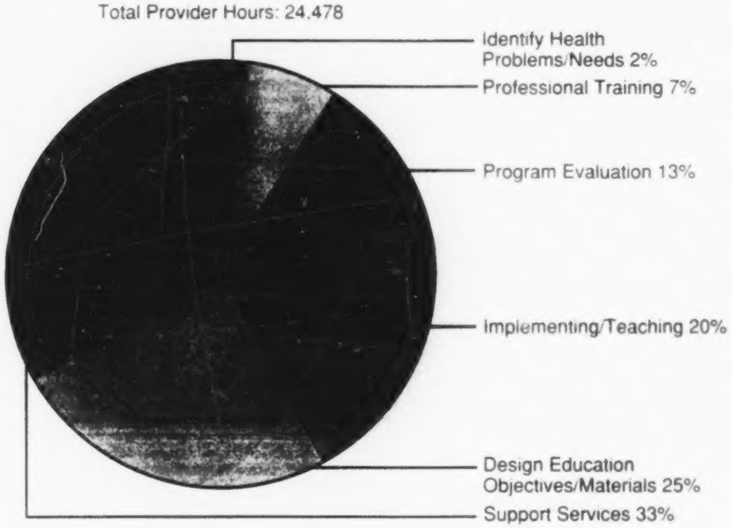

Table 6.26
Health Education Provider Hours by Task Function, FY 1995

Task	Number of Hours	Percent Distribution
Total Hours	24,478	100.0
Support Services	8,051	32.9
Design Education Objectives/Materials	6,165	25.2
Implementing/Teaching	4,990	20.4
Program Evaluation	3,107	12.7
Professional Training	1,772	7.2
Identify Health Problems/Needs	393	1.6

Chart 6.27
Indian Health Service Health Education—Percent of Clients Served by Task Function, FY 1995

Over 90 percent of health education clients received services in one of two functional areas—implementing/teaching (50 percent) or design education objectives/materials (42 percent).

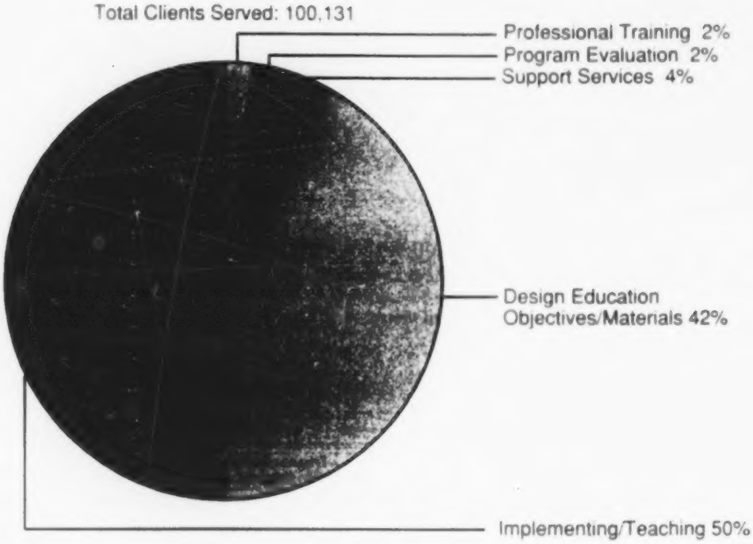

Table 6.27
Health Education Clients Served by Task Function, FY 1995

Task	Number of Clients	Percent Distribution
Total Clients	100,131	100.0
Implementing/Teaching	49,949	49.9
Design Education Objectives/Materials	41,761	41.7
Support Services	3,901	3.9
Program Evaluation	2,014	2.0
Professional Training	1,539	1.5
Identify Health Problems/Needs	967	1.0

GLOSSARY OF ICD-9 CODES

List of 72 Selected Causes of Death (1979-Present)

CAUSE OF DEATH	ICD-9 CODES
Shigellosis and amebiasis	004, 006
Certain other intestinal infections	007-009
Tuberculosis	010-018
Tuberculosis of respiratory system	010-012
Other tuberculosis	013-018
Whooping cough	033
Streptococcal sore throat, scarlatina, and erysipelas	034-035
Meningococcal infection	036
Septicemia	038
Acute poliomyelitis	045
Measles	055
Viral hepatitis	070
Syphilis	090-097
All other infectious and parasitic diseases	001-003, 005, 020-032, 037, 039-041, 042-044, 046-054, 056-066, 071-088, 098-139
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-208
Malignant neoplasms of lip, oral cavity, and pharynx	140-149
Malignant neoplasms of digestive organs and peritoneum	150-159
Malignant neoplasms of respiratory and intrathoracic organs	160-165
Malignant neoplasm of breast	174-175
Malignant neoplasms of genital organs	179-187
Malignant neoplasms of urinary organs	188-189
Malignant neoplasms of all other and unspecified sites	170-173, 190-199
Leukemia	204-208
Other malignant neoplasms of lymphatic and hematopoietic tissues	200-203
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature	210-239
Diabetes mellitus	250
Nutritional deficiencies	260-269
Anemias	280-285
Meningitis	320-322
Major cardiovascular diseases	390-448
Diseases of heart	390-398, 402, 404-429
Rheumatic fever and rheumatic heart disease	390-398
Hypertensive heart disease	402
Hypertensive heart and renal disease	404
Ischemic heart disease	410-414

CAUSE OF DEATH	ICD-9 CODES
Acute myocardial infarction	410
Other acute and subacute forms of ischemic heart disease	411
Angina pectoris	413
Old myocardial infarction and other forms of chronic ischemic heart disease	412, 414
Other diseases of endocardium	424
All other forms of heart disease	415-423, 425-429
Hypertension with or without renal disease	401, 403
Cerebrovascular diseases	430-438
Intracerebral and other intracranial hemorrhage	431-432
Cerebral thrombosis and unspecified occlusion of cerebral arteries	434.0, 434.9
Cerebral embolism	434.1
All other and late effects of cerebrovascular diseases	430, 433, 435-438
Atherosclerosis	440
Other diseases of arteries, arterioles, and capillaries	441-448
Acute bronchitis and bronchiolitis	466
Pneumonia and influenza	480-487
Pneumonia	480-486
Influenza	487
Chronic obstructive pulmonary diseases and allied conditions	490-496
Bronchitis, chronic and unspecified	490-491
Emphysema	492
Asthma	493
Other chronic obstructive pulmonary diseases and allied conditions	494-496
Ulcer of stomach and duodenum	531-533
Appendicitis	540-543
Hernia of abdominal cavity and intestinal obstruction without mention of hernia	550-553, 560
Chronic liver disease and cirrhosis	571
Cholelithiasis and other disorders of gallbladder	574-575
Nephritis, nephrotic syndrome, and nephrosis	580-589
Acute glomerulonephritis and nephrotic syndrome	580-581
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified	582-583, 587
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause	584-586, 588-589
Infections of kidney	590
Hyperplasia of prostate	600
Complications of pregnancy, childbirth, and the puerperium	630-676
Pregnancy with abortive outcome	630-638
Other complications of pregnancy, childbirth, and the puerperium	640-676
Congenital anomalies	740-759

CAUSE OF DEATH	ICD-9 CODES
Certain conditions originating in the perinatal period	760-779
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome	767-769
Other conditions originating in the perinatal period	760-766, 770-779
Symptoms, signs, and ill-defined conditions	780-799
All other diseases	Residual
Accidents and adverse effects	E800-E949
Motor vehicle accidents	E810-E825
All other accidents and adverse effects	E800-E807, E826-E949
Suicide	E950-E959
Homicide and legal intervention	E960-E978
All other external causes	E980-E999

List of 61 Selected Causes of Infant Death (1979-Present)

CAUSE OF DEATH	ICD-9 CODES
Certain intestinal infections	008-009
Whooping cough	033
Meningococcal infection	036
Septicemia	038
Viral diseases	045-079
Congenital syphilis	090
Remainder of infectious and parasitic diseases	001-007, 010-032, 034-035, 037, 039-041, 042-044, 080-088, 091-139
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-208
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature	210-239
Diseases of thymus gland	254
Cystic fibrosis	277.0
Diseases of blood and blood-forming organs	280-289
Meningitis	320-322
Other diseases of nervous system and sense organs	323-389
Acute upper respiratory infections	460-465
Bronchitis and bronchiolitis	466, 490-491
Pneumonia and influenza	480-487
Pneumonia	480-486
Influenza	487
Remainder of diseases of respiratory system	470-478, 492-519
Hernia of abdominal cavity and intestinal obstruction without mention of hernia	550-553, 560
Gastritis, duodenitis, and noninfective enteritis and colitis	535, 555-558
Remainder of diseases of digestive system	520-534, 536-543, 562-579
Congenital anomalies	740-759
Anencephalus and similar anomalies	740
Spina bifida	741
Congenital hydrocephalus	742.3
Other congenital anomalies of central nervous system and eye	742.0-742.2, 742.4-742.9, 743
Congenital anomalies of heart	745-746
Other congenital anomalies of circulatory system	747
Congenital anomalies of respiratory system	748
Congenital anomalies of digestive system	749-751
Congenital anomalies of genitourinary system	752-753
Congenital anomalies of musculoskeletal system	754-756
Down's syndrome	758.0
Other chromosomal anomalies	758.1-758.9
All other and unspecified congenital anomalies	744, 757, 759

CAUSE OF DEATH	ICD-9 CODES
Certain conditions originating in the perinatal period	760-779
Newborn affected by maternal conditions which may be unrelated to present pregnancy	760
Newborn affected by maternal complications of pregnancy	761
Newborn affected by complications of placenta, cord, and membranes	762
Newborn affected by other complications of labor and delivery	763
Slow fetal growth and fetal malnutrition	764
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Disorders relating to long gestation and high birthweight	766
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Fetal distress in liveborn infant	768.2-768.4
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Respiratory distress syndrome	769
Other respiratory conditions of newborn	770
Infections specific to the perinatal period	771
Neonatal hemorrhage	772
Hemolytic disease of newborn, due to isoimmunization, and other perinatal jaundice	773-774
Syndrome of "infant of a diabetic mother" and neonatal diabetes mellitus	775.0-775.1
Hemorrhagic disease of newborn	776.0
All other and ill-defined conditions originating in the perinatal period	775.2-775.9, 776.1-779
Symptoms, signs, and ill-defined conditions	780-799
Sudden infant death syndrome	798.0
Symptoms, signs, and all other ill-defined conditions	780-797, 798.1-799
Accidents and adverse effects	E800-E949
Inhalation and ingestion of food or other object causing obstruction of respiratory tract or suffocation	E911-E912
Accidental mechanical suffocation	E913
Other accidental causes and adverse effects	E800-E910, E914-E949
Homicide	E960-E969
Child battering and other maltreatment	E967
Other homicide	E960-E966, E968-E969
All other causes	Residual

Additional Causes of Death and Their Corresponding ICD-9 Codes Which May Be Found in This Publication

(These categories are not included as part of the 72 cause of death or 61 cause of infant death lists. They are independent of these two lists but are valid cause of death codes to use for the causes indicated)

CAUSE OF DEATH	ICD-9 CODES
Drug related deaths	292, 304, 305.2-305.9, E850-E858, E950-E950.5, E962.0, E980.0-E980.5
Maternal deaths	630-676
Human immunodeficiency virus (HIV) infection	042-044
Injury and poisoning	E810-E825, E800-E807, E826-E949, E950-E959, E960-E978, E980-E989, E990-E999
Other injuries	E980-E989, E990-E999
Alcoholism deaths	291, 303, 305.0, 357.5, 425.5, 535.3, 571.0-571.3, 790.3, E860
Injury by firearms	E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4
Gastroenteric deaths	004, 006-009, 535, 555-556, 558, 562
Breast cancer (females)	174
Cervical cancer	180

List of ICD-9-CM Codes Used in Patient Care Charts and Tables

CONDITION	ICD-9-CM CODES
Infectious and parasitic diseases	001-139
Neoplasms	140-239
Endocrine, nutritional, and metabolic diseases and immunity disorders	240-279
Diseases of the blood and blood-forming organs	280-289
Mental disorders	290-319
Diseases of the nervous system and sense organs	320-389
Diseases of the circulatory system	390-459
Diseases of the respiratory system	460-519
Diseases of the digestive system	520-579
Diseases of the genitourinary system	580-629
Complications of pregnancy, childbirth, and the puerperium	630-676
Diseases of the skin and subcutaneous tissue	680-709
Diseases of the musculoskeletal system and connective tissue	710-739
Congenital anomalies	740-759
Certain conditions originating in the perinatal period	760-779
Symptoms, signs, and ill-defined conditions	780-799
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Socio-economic factors	2.5-2.7	2.5
Suicide, all causes	4.21,4.22	4.21,4.22
Suicide, firearms	4.27,4.28	4.27,4.28

T

	Chart	Table
Tuberculosis	4.33	4.33

U

	Chart	Table
Unemployment	2.6	2.6
Urban programs	5.3	5.3

Y

	Chart	Table
Years of Potential Life Lost	4.38	4.37

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Indian Health Service
Rockville, MD 20857

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